# Michigan Public School Employees Retirement

Comprehensive Annual Financial Report for the Fiscal year Ended September 30, 1997

A Pension Trust Fund of the State of Michigan John Engler, Governor System

# Michigan Public School Employees' Retirement System

# Comprehensive Annual Financial Report for the Fiscal Year Ended September 30, 1997



# **MPSERS**

Prepared by:
Office of Retirement Systems
Michigan Public School Employees' Retirement System
7150 Harris Drive
P.O. Box 30673
Lansing, Michigan 48909-8103
(517) 322-5103

# Introductory Section

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The cost of printing this report was \$3,206.73, which was paid for by the retirement system at no cost to taxpayers.

Michigan Public School Employees' Retirement System

Comprehensive Annual Financial Report for the Fiscal Year Ended September 30, 1997

# INTRODUCTORY SECTION



**MPSERS** 

# **Certificate of Achievement**

# Certificate of Achievement for Excellence in Financial Reporting

Presented to

# Michigan Public School Retirement System

For its Comprehensive Annual Financial Report for the Fiscal Year Ended September 30, 1996

A Certificate of Achievement for Excellence in Financial Reporting is presented by the Government Finance Officers Association of the United States and Canada to government units and public employee retirement systems whose comprehensive annual financial reports (CAFRs) achieve the highest standards in government accounting and financial reporting.



# Introductory Section

# Letter of Transmittal

Michigan Public School Employees' Retirement System

General Office Building, Third Floor P.O. Box 30673 Lansing, Michigan 48909-8103 Telephone (517) 322-5103

# STATE OF MICHIGAN

JOHN ENGLER, Governor

# DEPARTMENT OF MANAGEMENT AND BUDGET

March 6, 1998

The Honorable John Engler Governor, State of Michigan,

Members of the Legislature State of Michigan Retirement Board Members and Members, Retirees and Beneficiaries

Ladies and Gentlemen:

We are pleased to present the annual report of the Michigan Public School Employees' Retirement System (MPSERS or System) for fiscal year 1997.

Responsibility for both the accuracy of the data and the completeness and fairness of the presentation, including all disclosures, rests with the management of the System. To the best of our knowledge and belief, the enclosed data is accurate in all material respects and is reported in a manner designed to present fairly the financial position and results of operations of the System.

The Michigan Public School Employees' Retirement System was established by legislation under Public Act 136 of 1945. The number of active and retired members and beneficiaries for the System is presented on page 17 of this report. The purpose of the System is to provide benefits for all public school employees. The services provided by the staff are performed to facilitate benefits to members.

The 1997 annual report is presented in five sections. The introductory section contains the transmittal letter, identification of the administrative organization and professional consultants used by the System. The financial section contains the independent auditors' report, financial statements of the System and certain supplemental schedules. The investment section summarizes investment activities. The actuarial section contains the independent consulting actuary's certification, an outline of actuarial assumptions and methods, and other actuarial statistics. The statistical section contains statistical tables of significant data pertaining to the retirement System.

# MAJOR INITIATIVES FOR THE YEAR

# **Customer Information Center**

In fiscal 1997, MPSERS and the other systems within the Office of Retirement Systems took a major step toward addressing member concerns regarding telephone communications.

# Introductory Section

# **Letter of Transmittal** (Continued)

addressing member concerns regarding telephone communications.

Beginning in the fall of 1997, MPSERS joined forces with the State Employees' Retirement System, the Judges' Retirement System, and the State Police Retirement System to establish a Customer Information Center (CIC). This toll-free telephone call-in center serves as a comprehensive clearinghouse for information for members of all four retirement systems.

The CIC staff, chosen from all four retirement systems, is cross-trained to allow any staff member to answer questions about any system. Questions that are too specialized for CIC staff to answer are directed to staff of the appropriate retirement system. The goal is that CIC will answer 60% of all calls during the first six months and 90% thereafter.

The CIC became operational in October 1997.

# Reengineering

In fiscal 1997, MPSERS aggressively pursued an ongoing program of business process reengineering. The MPSERS program radically changed various business processes, resulting in dramatic improvements in services.

The staff team began the fiscal year by reengineering the records units and mailroom functions. From there, it moved to the service credit evaluation and billing process, then on to the retirement applications process. By reengineering the application process, MPSERS sped up the process for placing new retirees on the pension payroll. During the months of July and August, which are the busiest months for public school retirees, 74% of all new retirees received their initial pension payment within 60 days of their retirement effective date.

# Record number of summer retirements

Because public school employees tend to plan their retirement around the close of the school year, summer is traditionally the busiest time for adding new retirees to the MPSERS payroll. The summer of 1997, however, was one of the busiest on record.

In fiscal 1997, MPSERS set a record for the number of new retirees placed on the pension payroll for the July-September period. With 1,612 added in July, 1,665 in August and 1,317 in September, new retirees totaled 4,594 for the summer. This figure is surpassed only by the summer of 1986, when the legislatively mandated "Rule of 80" was in effect.

# MPSERS on the World Wide Web

In fiscal 1997, MPSERS established a presence on the Internet World Wide Web. The page location is http://www.state.mi.us/dmb/mpsers.

The MPSERS homepage offers

- an overview of the System and its operations
- a listing of MPSERS Retirement Board members
- a listing of MPSERS regional offices, key telephone numbers and key staff
- answers to frequently asked questions for active members and retirees
- a complete copy of Public Act 300 of 1980, as amended, the legislation under which MPSERS operates
- information on the MPSERS statewide outreach program, including site maps and dates
- links to other retirement-related internet sites

# **Letter of Transmittal** (Continued)

The move to give MPSERS an internet presence was predicated on the growing level of internet access among members, retirees and reporting units. Research by ORS staff indicated almost every public school in Michigan has, or plans to acquire, an internet capability. Likewise, internet access by MPSERS retirees is estimated to be 8-10% and growing.

# Statewide Outreach Program

Last year, MPSERS initiated a pilot program of pre-retirement outreach meetings in selected areas. Members in those areas had the opportunity to attend a pre-retirement information meeting (PRIM) and schedule an individual appointment with a retirement counselor from the MPSERS staff.

Because of the success of the pilot, MPSERS expanded the program statewide in 1997. The statewide program targets approximately 45 sites, most affiliated with an intermediate school district.

The goal for the statewide program was to give MPSERS members an opportunity to attend a PRIM and meet with a counselor twice a year, within 50 miles or less of home. For most members, the program is meeting the goal.

# Health Care Initiatives - HMO Pilot Program

In fiscal 1997, MPSERS began several initiatives designed to improve the health care benefits available to MPSERS retirees and to keep the benefit affordable.

The major initiative was a voluntary pilot program giving retirees in targeted areas the option to join a health maintenance organization (HMO). Initially, the HMO option is available in West Michigan and Southeast Michigan, beginning in the fall of 1997.

The initiative is a response to retirees who belonged to HMOs while working and wished to continue those memberships in retirement, as well as those in certain areas whose access to traditional network providers is limited. Typically, HMOs offer preventative and wellness benefits that traditional health care packages do not.

Throughout the two-year pilot period, ORS staff will evaluate the initiative and decide whether to recommend expansion of the HMO option to other geographic areas.

# Health Care Initiatives - Two-tier Prescription Drug Co-payment

In fiscal 1997, MPSERS initiated a two-tier prescription drug co-payment schedule designed to encourage generic drug use. Under the new schedule, which took effect September 1, 1997, retirees continue to pay a \$4 co-payment for generic medications, but pay \$8 for brand name medications.

The two-tier system is necessary to keep pace with the rapidly increasing cost of prescription drugs, particularly brand names.

# CERTIFICATE OF ACHIEVEMENT

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to MPSERS for its comprehensive annual financial report for the fiscal year ended September 30, 1996. The Certificate of Achievement is a national award recognizing excellence in the

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# Introductory Section

# **Letter of Transmittal** (Continued)

To be awarded the Certificate of Achievement, a governmental unit must publish an easily readable and efficiently organized comprehensive annual financial report whose contents meet or exceed program standards. This report must satisfy both generally accepted accounting principles and applicable legal requirements. A Certificate of Achievement is valid only for one year. We believe our current report continues to meet the Certificate of Achievement program requirements and are submitting it to the GFOA for consideration again this year.

# FINANCIAL INFORMATION

#### Additions to Plan Net Assets

The reserves needed to finance retirement benefits are accumulated through the collection of employer and employee contributions and through earnings on investments. Contributions and investment income (including unrealized investment gains and losses) for fiscal year 1997 totaled approximately \$7.3 billion (See Table 1).

Total contributions and investment income increased 54.7% from those of the prior year due primarily to increased investment earnings. Employer contributions increased 10% and investment income increased 74.2% from the prior year. The investment section of this report reviews the results of investment activity for 1997.

Table 1 (\$ in Millions)			Increase	Increase
			(Decrease)	(Decrease)
	1997	1996	Amount	Percentage
Member contributions	\$ 278.6	\$ 279.1	\$ (0.5)	0 %
Employer contributions	1,222.3	1,110.8	111.5	10.0
Investment Income	5,794.6	3,325.8	2,468.8	74.2
Total	\$ 7,295.5	\$ 4,715.7	\$ 2,579.8	54.7 %

# **Deductions From Net Plan Asset**

The primary expenses of the system include the payment of pension benefits to members and beneficiaries, payments for health, dental and vision benefits, refund of contributions to former members, and cost of administering the retirement system. The growth of health care expenditures continued at a moderate rate during the year. As a result, expenses for health care increased by \$41.7 million from \$296.9 million to \$338.6 million during the fiscal year. Total expenses for fiscal year 1997 were \$1,686.4 million, an increase of 6.2% over 1996 expenses (see Table 2). The increase in benefit expenses resulted primarily from an increase in benefit payments to retirees.

# **Letter of Transmittal** (Continued)

Table 2 (\$ in Millions)			Increase	Increase
	1997	1996	Amount	Percentage
Pension benefits	\$1,317.8	\$ 1,268.3	\$ 49.5	3.9 %
Health care benefit	338.7	296.9	41.8	14.1
Refund	17.9	11.7	6.2	53.0
Administrative expenses	12.1	10.4	1.7	16.3
Total	\$1,686.5	\$ 1,587.3	\$ 99.2	6.2 %

# Internal Control

The management of the system is responsible for maintaining a system of adequate internal accounting control designed to provide reasonable assurance that transactions are executed in accordance with management's general or specific authorization, and are recorded as necessary to maintain accountability for assets and to permit preparation of financial statements in accordance with generally accepted accounting principles. The internal control structure is designed to provide reasonable assurance regarding the safekeeping of assets and reliability of all financial records.

# **YEAR 2000**

As the new millennium approaches, institutions throughout the world are faced with the problem that any system or business with a date component may fail or produce invalid results the first time a date in the new millennium is encountered. The System fully recognizes the significance and magnitude of this impending problem and is developing a comprehensive program to achieve Year 2000 compliance.

# **INVESTMENT**

The State Treasurer is the investment fiduciary and custodian of all investments of the system pursuant to state law. The primary investment objective is to maximize the rate of return on the total investment portfolio, consistent with a high degree of prudence and sufficient diversity to eliminate inordinate risks and to meet the actuarial assumption for the investment return rate. The investment activity for the year produced a total rate of return on the portfolio of 23.6%. For the last five years, the system has experienced an annualized dollar weighted rate of return of 13.8%. A summary of asset allocation and rates of return can be found on page 40 of this report.

# **FUNDING**

Funds are derived from the excess of revenue over expenses. Funds are accumulated by the system in order to meet future benefit obligations to retirees and beneficiaries. The percentage computed by dividing the actuarial value of assets by the actuarial accrued liability is referred to as the "funded ratio". This ratio provides an indication of the funding status of the system and, generally, the greater this percentage, the stronger the system. As of September 30, 1997, the actuarial value of the assets and actuarial accrued liability were \$30,051 million and \$29,792 million respectively, resulting in a funded ratio of 100.9%. As of September 30, 1996, the amounts were \$25,485 million and \$30,179 million respectively. A historical perspective of funding is presented on page 29 of this report.

As of September 30, 1997, pension plan net assets were \$30,001 million. The ratio of pension assets at market value to the actuarial accrued liability was 101%.

# Introductory Section

# **Letter of Transmittal** (Continued)

# PROFESSIONAL SERVICES

An annual audit of the system was conducted by Andrews, Hooper & Pavlik P.L.C., independent auditors. The auditors' report on the System's financial statements is included in the financial section of this report.

Statute requires an annual actuarial valuation be conducted. The purpose of the valuation is to evaluate the mortality, service, compensation and other financial experience of the retirement system and to recommend employer funding rates for the subsequent year. This annual actuarial valuation was completed for the fiscal years ended September 30, 1997 and 1996. Actuarial certification and supporting statistics are included in the actuarial section of this report.

#### ACKNOWLEDGMENTS

The preparation of this report was accomplished with the dedication and cooperation of many people. It is intended to provide complete and reliable information as a basis for making management decisions, as a means of determining compliance with legal provisions, and as a means for determining responsible stewardship of the funds of the system.

We would, therefore, like to express our appreciation for the assistance given by staff, the advisors and many people who contributed to its preparation. We believe their combined efforts have produced a report that will enable the employer and plan members to better evaluate and understand the Michigan Public School Employees' Retirement System. Their cooperation contributes significantly to the success of MPSERS.

Sincerely,

Janet E. Phipps, Director

Department of Management and Budget

Christopher M. De Ross

Christopher M. DeRose, Director Office of Retirement Systems

# **Administrative Organization**

# **Retirement Board Members**

Jack Anson, President Retiree Member Term Expires March 1, 1999

Thomas Lukshaitis Classroom Teacher Term Expires March 30, 2000

Diana Osborn Noncertified Support Member/Retiree Term Expires March 30, 2001

Dr. Donald Weatherspoon Representing Arthur E. Ellis State Superintendent of Education Statutory Member Robert Rietz General Public Term Expires March 1, 1998

Dr. Ella Stapleton Representing 1st Class District Term Expires March 1, 1998

Kenneth Walcott School System Superintendent Term Expires March 30, 2001 Michael E. Casady Classroom Teacher Term Expires March 30, 2000

Marsha Smith Classroom Teacher Term Expires March 30, 2001

Dr. Rudy Stefancik Reporting Unit Board of Control Term Expires March 30, 2001

# **Administrative Organization**

Department of Management and Budget
Office of Retirement Systems
Third Floor, Wing A, General Office Building
7150 Harris Drive
P.O. Box 30673, Lansing, Michigan 48909-8103
(517) 322-5103

Christopher M. DeRose, Director

Deborah A. Gearhart, Director Finance & Administration

Phillip Stoddard, Interim Director Michigan Public School Employees' Retirement System

# **Advisors and Consultants**

Actuary

The Segal Company Michael J. Karlin, F.S.A., M.A.A.A. New York, New York **Auditors** 

Thomas H. McTavish, C.P.A. Auditor General State of Michigan

Andrews, Hooper & Pavlik P.L.C. Jeffrey J. Fineis, C.P.A. Lansing, Michigan

Investment Manager and

Custodian
Douglas B. Roberts
State Treasurer
State of Michigan

Legal Advisor

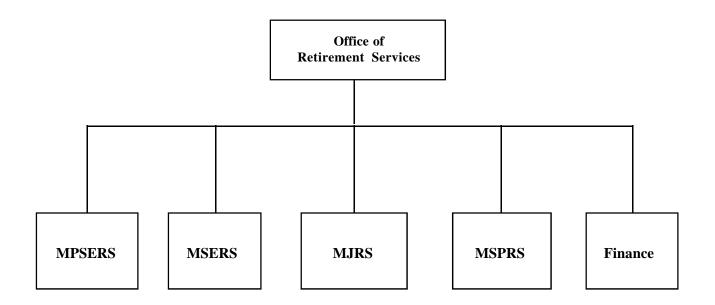
Frank J. Kelley Attorney General State of Michigan Medical Advisors
Preferred Medical Assoc.
Marquette General Hospital

Investment Performance Measurement S.E.I. Funds Evaluation Chicago, Illinois

# Introductory Section

# **Administrative Organization**

# **Organization Chart**



MPSERS - Michigan Public School Employees' Retirement System

MSERS - Michigan State Employees' Retirement System

MJRS - Michigan Judges' Retirement SystemMSPRS - Michigan State Police Retirement System

# Michigan Public School Employees' Retirement System

Comprehensive Annual Financial Report for the Fiscal Year Ended September 30, 1997

# FINANCIAL SECTION



**MPSERS** 

# **Independent Auditors' Report**



One Michigan Avenue Building Suite 1000 • 120 North Washington Square • Lansing, Michigan 48933

Ms. Janet Phipps, Director Department of Management and Budget

Mr. Thomas H. McTavish, CPA Auditor General State of Michigan

Michigan Public School Employees Retirement System Board:

We have audited the accompanying statements of pension plan and postemployment healthcare plan net assets of the Michigan Public School Employees Retirement System, as of September 30, 1997 and 1996, and the related statements of changes in pension plan and postemployment healthcare plan net assets for the years then ended. These financial statements are the responsibility of the management of the Michigan Public School Employees Retirement System. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards and Government Auditing Standards, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to in the first paragraph present fairly, in all material respects, the plan net assets of the Michigan Public School Employees Retirement System, as of September 30, 1997 and 1996, and the changes in plan net assets for the years then ended in conformity with generally accepted accounting principles.

As described in Notes 2 and 4, Michigan Public School Employees Retirement System adopted GASB Statements 25, 26 and 28 in 1997 and restated amounts reported for 1996 as required.

Our audit was conducted for the purpose of forming an opinion on the financial statements taken as a whole. The required supplementary information and supplemental schedules listed in the table of contents are presented for the purpose of additional analysis and are not a required part of the basic financial statements. The required supplementary information and supporting schedules are the responsibility of the System's management. Such information and schedules have been subjected to the auditing procedures applied in our audits of the basic financial statements and, in our opinion, are fairly stated in all material respects when considered in relation to the basic financial statements taken as a whole.

In accordance with Government Auditing Standards, we have also issued a report dated February 6, 1998 on our consideration of the Michigan Public School Employees Retirement System's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, and contracts.

andrews Soope & Favlik P.L.C.

February 6, 1998

Lansing 517 487-5000 • Fax 517 487-9535 / Saginaw 517 754-8471 • Fax 517 754-6567

# Statements of Pension Plan and Postemployment Healthcare Plan Net Assets

	September 30, 1997			September 30, 1996			
·	Pension	Health		Pension	Health		
	Plan	Plan	Total	Plan	Plan	<b>Total</b>	
Assets:							
Cash	\$122,999,885	\$530,058	\$123,529,943	\$183,912,292	\$875,753	\$184,788,045	
Receivables:							
Amounts due from employee	e 206,193	889	207,082				
Amounts due from employe	r 106,768,151	460,108	107,228,259	96,246,181	458,305	96,704,486	
Interest and dividends	138,118,369	595,209	138,713,578	127,255,038	605,962	127,861,000	
Sale of investments	32,438,211	139,790	32,578,001	85,877,262	408,930	86,286,192	
Total receivables	277,530,924	1,195,996	278,726,920	309,378,481	1,473,197	310,851,678	
Investments:							
Short term investments	2,471,179,113	10,649,338	2,481,828,451	1,616,369,524	7,696,820	1,624,066,344	
Bonds, notes, mortgages							
and preferred stock	7,609,634,958	32,793,079	7,642,428,037	7,344,853,059	34,974,683	7,379,827,742	
Common stock	14,169,931,065	61,064,121	14,230,995,186	10,832,473,305	51,582,014	10,884,055,319	
Real estate	1,894,909,032	8,165,950	1,903,074,982	1,544,018,758	7,352,300	1,551,371,058	
Alternative investments	1,966,190,781	8,473,133	1,974,663,914	1,733,901,658	8,256,484	1,742,158,142	
International investments	1,605,612,241	6,919,250	1,612,531,491	1,065,433,809	5,073,377	1,070,507,186	
Collateral on							
loaned securities	1,107,703,717	4,773,556	1,112,477,273	599,577,855	2,855,067	602,432,922	
Total investments	30,825,160,907	132,838,427	30,957,999,334	24,736,627,968	117,790,745	24,854,418,713	
Equipment							
(net of depreciation)	1,810	8	1,818	3,620	17	3,637	
Total assets	31,225,693,526	134,564,489	31,360,258,015	25,229,922,361	120,139,712	25,350,062,073	
Liabilities:							
Warrants outstanding	(10,031,497)	(43,230)	(10,074,727)	(13,388,860)	(63,755)	(13,452,615)	
Accounts payable and	, , , ,	, , ,	, , , ,	, , , ,	, , ,	,	
other accrued liabilities	(106,013,358)	(456,856)	(106,470,214)	(163,919,201)	(780,550)	(164,699,751)	
Deferred revenue	(86,155)	(370)	(86,525)	(22,513)	(107)	(22,620)	
Obligations under							
securities lending	(1,107,703,717)	(4,773,556)	(1,112,477,273)	(599,577,855)	(2,855,067)	(602,432,922)	
Total liabilities	(1,223,834,727)	(5,274,013)	(1,229,108,739)	(776,908,429)	(3,699,479)	(780,607,908)	
Net Assets Held in							
Trust for Pension and							
Healthcare Benefits*	\$30,001,858,799	\$129,290,477	\$30,131,149,276	\$24,453,013,932	\$116,440,233	\$24,569,454,165	

<sup>\*</sup>A schedule of funding progress is presented on page 29.

The accompanying notes are an integral part of these financial statements.

# **Statements of Changes in Pension Plan** and Postemployment Healthcare Plan Net Assets

		September 3	0, 1997	September 30, 1996			
	Pension	Health	_	Pension	Health	-	
	Plan	Benefits	Total	Plan	Plan	Total	
Additions:							
Members contributions:							
Other	\$251,253,698	\$25,219,853	\$276,473,551	\$253,105,332	\$23,966,625	\$277,071,957	
Military	2,104,592		2,104,592	1,980,616		1,980,616	
Employer contributions:							
Undistributed receipts and of			790,726	1,294		1,294	
Colleges, universities and fed	eral 68,807,930	23,409,765	92,217,695	64,441,033	21,865,416	86,306,449	
School districts and other	835,218,857	294,046,018	1,129,264,875	765,159,368	259,340,981	1,024,500,349	
Investment income:							
Investment income	5,753,912,076		5,753,912,076	3,297,172,158		3,297,172,158	
Securitites lending income	40,667,645		40,667,645	28,675,936		28,675,936	
Less investment expenses:							
Real estate operating expens	ses (1,045,076)		(1,045,076)	(5,660,600)		(5,660,600)	
Securities lending expenses	(39,321,794)		(39,321,794)	(27,711,210)		(27,711,210)	
Other investment expenses	(6,921,177)		(6,921,177)	(5,110,423)		(5,110,423)	
Miscellaneous income	892		892				
Total additions	6,905,468,369	342,675,636	7,248,144,005	4,372,053,504	305,173,022	4,677,226,526	
Deductions:  Benefits and refunds paid to pla members and beneficiaries:	an						
Retirement benefits	1,317,828,100		1,317,828,100	1,268,260,318		1,268,260,318	
Health benefits	-,,,	271,980,970	271,980,970	-,,,	236,151,335	236,151,335	
Dental/vision benefits		36,048,746	36,048,746		29,247,750	29,247,750	
Refund of member contribute	tions 17,835,511	45,539	17,881,050	11,619,500	59,336	11,678,836	
Transfers to other systems	23,552	10,000	23,552	19,209	,	19,209	
Administrative expenses	12,102,095	30,584,381	42,686,476	10,381,801	31,451,867	41,833,668	
r							
Total deductions	1,347,789,258	338,659,636	1,686,448,894	1,290,280,828	296,910,288	1,587,191,116	
Net Increase	5,557,679,111	4,016,000	5,561,695,111	3,081,772,676	8,262,734	3,090,035,410	
Other Changes in Net Assets							
Interest allocation	(8,834,244)	8,834,244		(17,171,997)	17,171,997		
Net Increase							
After Other Changes	5,548,844,867	12,850,244	5,561,695,111	3,064,600,679	25,434,731	3,090,035,410	
Net Assets Held in Trust							
for Pension and							
Healthcare Benefits:							
Beginning of Year	24,453,013,932	116,440,233	24,569,454,165	21,388,413,253	265,505,502	21,653,918,755	
Equity transfers to other funds					(174,500,000)	(174,500,000)	
End of Year	\$30,001,858,799	\$129,290,477	\$30,131,149,276	\$24,453,013,932	\$116,440,233	\$24,569,454,165	

The accompanying notes are an integral part of these financial statements.

# **Notes to General Purpose Financial Statements**

# **NOTE 1 - PLAN DESCRIPTION**

# **ORGANIZATION**

The Michigan Public School Employees' Retirement System (MPSERS) is a cost-sharing multiple employer, state-wide, defined benefit public employee retirement plan governed by the State of Michigan (State) originally created under Public Act 136 of 1945, recodified and currently operating under the provisions of Public Act 300 of 1980, as amended. MPSERS was established to provide retirement, survivor and disability benefits to the public school employees. There are 733 participating employers. A list of employers starts on page 59 in the statistical section. MPSERS is a qualified trust fund under section 401(a) of the Internal Revenue Code. By statute, employees of K-12 public school districts, public school academies, district libraries, tax-supported community colleges and seven universities may be members. The seven universities are: Eastern, Central, Northern, Western Michigan, Ferris State, Michigan Technological and Lake Superior State. Employees who first become employed by one of the seven universities on or after January 1, 1996, become members of an alternative plan.

MPSERS operates within the Michigan Department of Management and Budget, Office of Retirement Systems. The Department Director appoints the Office Director who serves as Executive Secretary to the MPSERS' Board, with whom the general oversight of the retirement system resides. The State Treasurer serves as the investment officer and custodian for the system. Public Act 488 of 1996, made changes in the membership of the MPSERS' Board. These changes added two members on January 1, 1997 and will add two more members on March 31, 1998.

# **MEMBERSHIP**

At September 30, 1997, and 1996, the System's membership consisted of the following.

Retirees and beneficiaries		
currently receiving benefits:	1997	<u>1996</u>
Regular benefits	98,360	94,570
Survivor benefits	9,520	9,090
Disability benefits	3,962	3,805
Total	111,842	107,465
Current employees:		
Vested	122,302	121,878
Non-vested	173,389	173,218
Total	295,691	295,096
Inactive employees entitled to benefits and not yet		
receiving them	9,890	9,560
Total All Members	417,423	412,121

Enrollment in the health care fund is voluntary. The number of plan participants are as follows.

Health/Dental/Vision Plan	1997	1996
Eligible participants	111,842	107,465
Participants receiving benefits	95.148	92,948

# **Notes to General Purpose Financial Statements**

#### BENEFIT PROVISIONS

#### Introduction

Benefit provisions of the defined benefit pension plan are established by state statute, which may be amended. Public Act 300 of 1980, as amended, establishes eligibility and benefit provisions for the defined benefit pension plan. Retirement benefits are determined by final average compensation and years of service. Members are eligible to receive a monthly benefit when they meet certain age and service requirements. MPSERS also provides disability and survivor benefits.

A member who leaves Michigan Public School employment may request a refund of his or her member contribution account. Returning members who previously received a refund of their contributions may reinstate their service through repayment of the refund upon satisfaction of certain requirements.

Under the Public School Employees' Retirement Act, all retirees have the option of continuing health, dental and vision coverage. The employer funds health benefits on a pay-as-you-go basis. Retirees with this coverage contribute a portion of the monthly premium amount.

# Regular Retirement

The retirement benefit is based on a member's years of credited service (employment) and final average compensation. Final average compensation is the member's highest total wages earned during a specific period of consecutive calendar months divided by the service credit accrued during that same time period. For a Member Investment Plan (MIP) member, the averaging period is 36 consecutive months. For a Basic Plan member this period is the 60 consecutive months yielding the highest total wages. A pension is payable monthly for the lifetime of a retiree and equals 1.5% of a member's final average compensation multiplied by the total number of years of credited service.

A Member Investment Plan member may retire at:

- 1. any age with 30 or more years of credited service; or
- 2. age 60 with 10 or more years of credited service; or
- 3. age 60 with 5 years of credited service provided the member has worked through his or her 60th birthday and has credited service in each of the five school fiscal years immediately preceding the retirement effective date.

A Basic Plan member may retire at:

- 1. age 55 with 30 or more years of credited service; or
- 2. age 60 with 10 or more years of credited service.

There is no mandatory retirement age.

# Early Retirement

A member may retire with an early permanently reduced pension:

- 1. after completing at least 15 but less than 30 years of credited service; and
- 2. after attaining age 55; and
- 4. with credited service in each of the 5 school years immediately preceding the pension effective date.

The early pension is computed in the same manner as a regular pension but is permanently reduced 0.5% for each full and partial month between the pension effective date and the date the member will attain age 60.

# Deferred Retirement

If a member terminates employment before attaining the age qualification but after accruing 10 or more years of credited service, the member becomes a deferred member and is eligible for a pension at the time the age qualification is attained.

# **Notes to General Purpose Financial Statements**

# Non-Duty Disability Benefit

A member with 10 or more years of credited service who becomes totally and permanently disabled due to any non-duty related cause and who has not met the age requirement for a regular pension is eligible for a non-duty disability pension computed in the same manner as an age and service pension, upon recommendation from the member's personal physician and the Retirement Board physician and the approval of the Retirement Board. An Annual Certification of Disability is conducted each January. Upon prior approval, total disability benefits plus authorized outside earnings are limited to 100% of final average compensation (increased by two percent for each year retired).

# **Duty Disability Benefit**

A member who becomes totally and permanently disabled as a result of a duty-related cause, who has not met the age and service requirement for a regular pension, and who is in receipt of Weekly Worker's Compensation is eligible for a duty disability pension computed in the same manner as an age and service pension (but based upon a minimum of 10 years of service) upon recommendation from the member's personal physician and the Retirement Board physician and the approval of the Retirement Board. An Annual Certification of Disability is conducted each January. Upon prior approval, total disability benefits plus authorized outside earnings are limited to 100% of final average compensation (increased by two percent for each year retired).

# Forms of Payment

The election of a pension option is made at the time of application. Once a member has retired, the option choice is irrevocable. The pension effective date is the first of the calendar month following the date the member has satisfied the age and service requirements, has terminated public school employment and has the completed application forms on file with the system for a period of 15 days. A retroactive pension can be paid for no more than 12 calendar months. Thus, delay in filing the application can result in a loss of some retroactive pension benefits. An applicant may select only one the follow options.

<u>Single Life Pension Option 1</u> — Option 1 pays the largest level pension a retiree can receive during his or her lifetime and stops with the month of a retiree's death. There are no monthly benefits for a beneficiary. The pension benefit is computed with no beneficiary rights. If the retiree made contributions while an employee and has not received the total accumulated contributions before death, a refund of the balance of the contributions is made to the beneficiary of record. If the retiree did not make any contributions, there will not be payments to any beneficiaries.

<u>Survivor options (Options 2, 2-E, 3, and 3-E)</u> — Under the Survivor Options 2, 2-E, 3, and 3-E, the reduction is an actuarial determination dependent upon the combined life expectancies of a retiree and a beneficiary, and varies from case to case. A beneficiary may only be a spouse, brother, sister, parent or child (including an adopted child) of a retiring member. If the beneficiary pre-deceases a retiree, the pension will revert to either the Option 1 or 1-E amount ("pop-up" provision).

Option 2 — (100% Survivor Pension) pays a reduced pension to a retiree. The month after a retiree's death the same amount will be paid to a designated beneficiary for the remainder of his or her lifetime.

Option 3 — (50% Survivor Pension) pays a reduced pension to a retiree. The month after a retiree's death, one-half of the Option 3 amount will be paid to the designated beneficiary for the remainder of his or her lifetime.

<u>Equated Plan</u> — The equated plan may be combined with Option 1, 2, or 3 by any member under age 61 except a disability applicant. The equated plan provides a higher pension every month until age 62, at which time the monthly pension is permanently decreased to a lower amount than Option 1, 2, or 3 alone would provide.

The intent of the Equated Plan is for the retiree's pension to decrease at age 62 by approximately the same amount as that person's Social Security benefit will provide. The MPSERS pension until age 62 should be about the same as the combined MPSERS pension and Social Security after age 62.

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# **Notes to General Purpose Financial Statements**

The before-age-62 and after-age-62 amounts used in the Equated Plan are based on an estimated age 62 Social Security benefit table provided by the actuary. The actual projected Social Security pension the retiring member obtains from the Social Security Administration and furnishes to the Retirement System may also be used in the Equated Plan calculation. MPSERS estimates the Social Security pension by using the retiring member's final average earnings, age at retirement and only service performed as a public school employee under this Retirement System. The actual Social Security pension may vary from the estimate.

NOTE: The reduction in the pension at age 62 pertains to the Equated Plan only and affects only the retiree. A beneficiary under Option 2-E or 3-E will receive the Option 2 or 3 amount the month following the retiree's death as if the Equated Plan had not been chosen. A beneficiary does not participate in the Equated Plan.

# Survivor Benefit

A non-duty survivor pension is available if a Member Investment Plan participant has 10 years of credited service or, if age 60 or older, five years. The Basic Plan provides a survivor pension with 15 years of credited service or, if age 60 or older, 10 years. An active member may nominate as a survivor beneficiary a spouse, child(ren) (including adopted child(ren)), brother, sister, or a parent. If other than the spouse is nominated and a spouse exists, the spouse must waive this benefit. If no beneficiary has been nominated, the beneficiary is automatically the spouse; or, if there is no spouse, unmarried children under age 18 share the benefit equally until age 18. The benefit is computed as a regular pension but reduced in accordance with an Option 2 (100% survivor pension factor). The pension begins the first of the month following the member's death. In the event of the death of a deferred member, MPSERS begins payment to the nominated beneficiary at the time the member would have attained the minimum age qualification.

A duty survivor pension is payable if weekly Worker's Compensation is being paid to the eligible beneficiary due to the member's death. The spouse receives the benefit (based on a minimum of 10 years of service credit) reduced in accordance with an Option 2 (100% survivor pension factor). If there is no spouse, unmarried children under age 18 share the benefit equally until age 18; if there is no spouse or child(ren), a disabled and dependent parent is eligible.

# Post Retirement Adjustments

Member Investment Plan (MIP) recipients receive an annual post-retirement non-compounded increase of three percent of the initial pension in the October following twelve months of retirement. Basic Plan recipients receive a supplemental payment in those years when investment earnings exceed actuarial assumptions.

On January 1, 1990, pre-October 1, 1981, retirees received an increase that ranged from 1% to 22% depending on pension effective date. On October 1, 1990, the base pension of all retirees with an effective pension date of January 1, 1987, or earlier was increased to include all prior post-retirement adjustments.

On January 1, 1986, all recipients through calendar year 1985 received a permanent 8% increase that established the 1986 base pension. In addition, each October, retirees with a pension effective date of January 1, 1987, or earlier receive a fixed increase equal to 3% of the base pension. Both increases are deducted from the distribution of excess investment income, if any. Beginning in 1983, eligible recipients receive an annual distribution of excess investment income, if any.

One time upward adjustments were made in 1972, 1974, 1976, and 1977 for retirees who retired on or after July 1, 1956, and were eligible for Social Security benefits. (Social Security coverage was enacted by referendum in 1956.) The minimum base pension of retirees who were unable to qualify for Social Security through their public school employment (essentially pre-July 1, 1956 retirees), was increased in 1965, 1971, 1972, 1974, and 1981 with a percentage increase granted in 1976 and 1977.

# Member Contributions

Mandatory member contributions were phased out between 1974 and 1977, with the plan remaining noncontributory until January 1, 1987 when the MIP was enacted.

# Notes to General Purpose Financial Statements

Member Investment Plan (MIP) members enrolled in MIP prior to January 1, 1990 contribute at a permanently fixed rate of 3.9% of gross wages. The MIP contribution rate was 4.0% from January 1, 1987, the effective date of the MIP, until January 1, 1990 when it was reduced to 3.9%. Members first hired January 1, 1990 or later and returning members who did not work between January 1, 1987 through December 31, 1989 contribute at the following graduated permanently fixed contribution rate: 3% of the first \$5,000; 3.6% of \$5,001 through \$15,000; 4.3% of all wages over \$15,000.

Basic Plan members make no contributions. For a limited period ending December 31, 1992, an active Basic Plan member could enroll in the MIP by paying the contributions that would have been made had enrollment occurred initially on January 1, 1987 or on the date of hire, plus interest. MIP contributions at the rate of 3.9% of gross wages begin at enrollment. Market rate interest is posted to member accounts on July 1st on all MIP monies on deposit for 12 months. If a member leaves MPSERS service and no pension is payable, the member's accumulated contributions plus interest, if any, are refundable.

# **Employer Contributions**

The system implemented new employer contributions procedures as a result of implementing the effects of the school finance reform act. Under these new procedures, each school district or reporting entity is required to contribute the full actuarial funding contribution amount to fund pension benefits, plus an additional amount to fund retiree health care benefit amounts on a cash disbursement basis. In prior years each shool district or reporting entity contributed 5% of gross wages, with additional amounts from community college, higher educational institutions and federal programs. A chart showing the employer contribution rates is included on page 30 of this report.

# Other Post Employment Benefits

Retirees have the option of health coverage which is funded on a cash disbursement basis by the employers. The State of Michigan has contracted to provide the comprehensive group medical, hearing, dental and vision coverages for retirees and beneficiaries. All health care benefits are on a self-funded basis. A significiant portion of the premium is paid by MPSERS with the balance deducted from the monthly pension. Public Act 180 of 1996 also authorized payments to the school districts as a one time \$174.5 million reduction in MPSERS reserves for health benefits, which in years prior to 1991 was pre-funded.

Pension recipients are eligible for fully paid Master Health Plan coverage and 90% paid Dental Plan, Vision Plan and Hearing Plan coverage with the following exceptions:

- 1. Retirees not yet eligible for Medicare coverage pay an amount equal to the Medicare Part B premiums.
- 2. Retirees with less than 30 years of service, who terminate employment after October 31, 1980 with vested deferred benefits, are eligible for partially employer paid health benefit coverage (no payment if less than 21 years of service).

Dependents are eligible for 90% employer paid health benefit coverages (partial payment for dependents of deferred vested members who had 21 or more years of service).

The number of plan participants and other revelant financial information is as follows:

Health, Dental and Vision Plan:	1997	1996
Eligible participants	111,842	107,465
Participants receiving benefits	95,148	92,948
Expenses for the year	\$338,659,636	\$296,910,288
Payroll contribution rate	3.95%	3.63%

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# **Notes to General Purpose Financial Statements**

The only requirements for health benefits are that the retiree or beneficiary make application and be in receipt of a monthly pension. Applications for enrollment after retirement are accepted anytime during the year, with coverage effective six months following the receipt of the application.

# NOTE 2 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

# Basis of Accounting and Presentation

MPSERS financial statements are prepared using the accrual basis of accounting. Contributions from the employers are recognized as revenue in the period in which employees provide service. Benefits and refunds are recognized when due and payable in accordance with the terms of the plan.

# Reserves

Reserve for Employees' Contributions — Members no longer contribute to this reserve except to purchase eligible service credit or repay previously refunded contributions. This reserve represents active member contributions and interest less amounts transferred to the Reserve for Retired Benefit Payments for regular and disability retirement, amounts refunded to terminated members, and amounts transferred to the Employers' Contribution Reserve representing unclaimed funds. At September 30, 1997, and 1996, the balance in this account was \$907 million and \$801 million respectively.

Reserve for Member Investment Plan — This reserve represents MIP contributions and interest less refunds and transfers to the Reserve for Retired Benefit Payments. At September 30, 1997, and 1996, the balance in this account was \$1.9 billion and \$1.8 billion respectively.

Reserve for Employer Contributions — All reporting unit contributions, except payments for health benefits, are credited to this reserve. Interest from the Reserve for Undistributed Investment Income account is credited annually. Amounts are transferred annually to the Reserve for Retired Benefit Payments to fully fund that reserve. At September 30, 1997, and 1996, the balance in this account was \$2.9 billion and \$3.1 billion respectively.

Reserve for Retired Benefit Payments — This represents the reserves for payment of future retirement benefits to current retirees. At retirement, a member's accumulated contributions plus interest are transferred into this reserve. Monthly benefits, which are paid to the retiree, reduce this reserve. At the end of each fiscal year, an amount, determined by an annual actuarial valuation, is transferred from the Reserve for Employer Contributions to fully fund this reserve. At September 30, 1997, and 1996, the balance in this account was \$14.3 billion and \$13.2 billion respectively.

Reserve for Undistributed Investment Income and Reserve for Administrative Expenses — The Reserve for Undistributed Investment Income account is credited with all investment earnings. Interest is transferred annually to the other reserves. Administrative expenses of the retirement system are paid from the Reserve for Administrative Expense, which is credited with amounts from the Reserve for Undistributed Investment Income to cover the expenses. For ease of reporting and understanding, the two reserves are presented as one reserve. At September 30, 1997, and 1996, the balance in this account was \$9.9 billion and \$5.4 billion respectively.

Reserve for Health Benefits — This fund is credited with employee and employer contributions for retirees' health, dental and vision benefits. Health, dental and vision benefits are paid from this fund. The retirement system pays 90% of the monthly premium, membership, or subscription fee for health, dental, vision and hearing benefits. At September 30, 1997, and 1996, the balance in this account was \$129.3 million and \$116.4 million respectively.

# Fair Value of Investments

Plan investments are reported at fair value, except for short-term investments. Short-term investments are carried at cost, which approximates fair value. Securities traded on a national or international exchange are valued at the last reported sales price at current exchange rates. Corporate bonds not traded on a national or international exchange are based on equivalent values of comparable securities with similar yield and risk. Real estate debt is valued on the basis of future

# **Notes to General Purpose Financial Statements**

principal and interest payments, and is discounted at prevailing interest rates for similar instruments. The fair value of real estate investments is based on independent appraisals. Other investments that do not have an established market are recorded at estimated fair value.

# Reporting Entity

MPSERS is a pension trust fund of the State of Michigan. As such, MPSERS is considered part of the State and is included in the State's comprehensive annual financial report as a pension trust fund. MPSERS and the MPSERS' board are not financially accountable for any other entities or other organizations. Accordingly, MPSERS is the only entity included in this financial report.

# Investment Income

Dividend income is recognized based on the ex-dividend date and interest income is recognized on the accrual basis as earned. Fair value changes are recorded as investment income or loss. Purchases and sales of investments are recorded as of the trade date (the date upon which the transaction is initiated), except for purchase and sale of mortgages, real estate, and alternative investments which are recorded as of the settlement date (the date upon which the transaction is ultimately completed). The effect of recording such transactions as of the settlement date does not materially affect the financial statements.

# Property and Equipment

Office space is leased from the State on a year to year basis. Office equipment is capitalized if the value exceeds \$5,000. These assets are recorded at cost and are reported net of depreciation in the Statement of Plan Net Assets. Such assets are depreciated on a straight line basis over 10 years.

# Related Party Transactions

<u>Leases and services</u> — The retirement system leases operating space and purchases certain administrative, data processing, legal and investment services from the State. The space and services are not otherwise available by competitive bid. The following summarizes costs incurred by MPSERS for such services.

	 1997	 1996
Building rentals	\$ 287,423	\$ 184,878
Administrative services	861,848 1.672,588	457,788 2,289,013

<u>Common Cash</u> — The cash account includes \$123,529,943 and \$184,788,045 on September 30, 1997, and 1996, respectively, which represents funds deposited in a common cash investment pool maintained for various State operating funds. The participating funds in the common cash pool earn interest at various rates depending upon prevailing short-term interest rates. Earnings from these activities amounted to \$7,959,886 and \$10,490,455 for the years ended September 30, 1997, and 1996, respectively.

# Effect of change in accounting principle

During fiscal year 1997, MPSERS adopted the provisions of Governmental Accounting Standards Board (GASB) Statement No. 25, Financial Reporting for Defined Benefit Pension Plans and Note Disclosures for Defined Contribution Plans, and Statement No. 26, Financial Reporting for Postemployment Healthcare Plans Administered by Defined Benefit Pension Plans. GASB Statements 25 and 26 establish the financial reporting framework for pension plans. The framework includes fair value accounting for investments (recognition of unrealized investment gains and losses), amortization of unfunded actuarial liabilities over 40 years, and requires certain additional disclosures regarding postemployment healthcare benefits.

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# **Notes to General Purpose Financial Statements**

The provisions of GASB Statement No. 25 and 26 require restatement of the prior year balances for the effect of changing from reporting investments at cost to reporting investments at fair value. The effect of the change in accounting principle on the net assets held in trust for pension benefits and postemployment healthcare benefits as of September 30, 1995, is shown below.

	Pension	Health	Total
September 30, 1995 Net assets held in trust for benefits, as previously reported	\$ 17,983,247,815	\$ 223,235,412	\$ 18,206,483,227
Cumulative effect of change in accounting principle	3,405,165,438	42,270,090	3,447,435,528
September 30, 1995, Net assets held in trust,	\$ 21,388,413,253	\$ 265,505,502	\$ 21,653,918,755

# Reclassification of Prior Year Amounts

Certain amounts in the prior year financial statements have been reclassified to conform with the current year presentation.

# **NOTE 3 - CONTRIBUTIONS**

#### **Contributions**

The majority of MPSERS members currently participate on a contributory basis. Reporting units are required by Public Act 300 of 1980, as amended, to contribute amounts necessary to finance the coverage of members. Contribution provisions are specified by state statute and may be amended only by action of the state legislature.

Employer contributions to MPSERS are determined on an actuarial basis using the entry age normal actuarial cost method. Under this method, the actuarial present value of the projected benefits of each individual included in the actuarial valuation is allocated on a level basis over the service of the individual between entry age and assumed exit age. The portion of this cost allocated to the current valuation year is called the normal cost. The remainder is called the actuarial accrued liability. Normal cost is funded on a current basis. The contribution rate for unfunded service rendered before the valuation date, the unfunded actuarial accrued liability contribution rate, is amortized over a period of 40 years (39 years remaining).

Actual employer contributions for retirement benefits were \$904,165,262 and \$829,600,401 representing 11.3% and 10.6% of reported annual payroll, for the years ended September 30, 1997, and 1996, respectively. Required employer contributions for pensions included:

- 1. \$923,480,135 and \$898,870,863 for fiscal years 1997 and 1996, respectively, for normal cost of pensions representing 11.83% and 11.88%, respectively, of annual covered payroll.
- 2. \$251,805,561 and \$259,060,715 for fiscal years 1997 and 1996, respectively, for amortization of unfunded actuarial liability, representing 3.23% and 3.42%, respectively, of annual covered payroll.

The above contribution rates total 15.06% and 15.30% for fiscal years 1997 and 1996, respectively. The total required employer contribution rate was 10.97% and 11.21% for fiscal years 1997 and 1996, respectively, of annual covered payroll. The total required member contribution rate was 4.09% and 4.09% for fiscal years 1997 and 1996, respectively, of annual covered payroll.

The System is required to reconcile with actuarial requirements annually. Any funding excess or deficiency is included in the subsequent years contribution, and is not recognized as a payable or receivable in the accounting records. Based on this reconciliation and other adjustments, the differences are smoothed over 5 years.

# **Notes to General Purpose Financial Statements**

# **NOTE 4 - INVESTMENTS**

# **Investment Authority**

Under Public Act 380 of 1965, as amended, the authority for the purchase and the sale of investments resides with the State Treasurer. Investments are made subject to the Michigan Public Pension Investment Act, Public Act 314 of 1965, as amended. The Michigan Public Pension Investment Act authorizes, with certain restrictions, the investment of pension fund assets in stock, corporate and government bonds and notes, mortgages, real estate, and certain short term and alternative investments. Investments must be made for the exclusive purposes of providing benefits to active members, retired members and beneficiaries, and of defraying the expenses of investing the assets.

Under Public Act 314 of 1995, as amended, up to 5% of the system's assets in alternative investments and up to 15% of the system's assets in investments not otherwise qualified under Act 314. Alternative investments include limited partnerships and distributions from these partnerships in the form of bonds, preferred stock and common stock.

#### **Derivatives**

The State Treasurer does not employ the use of derivatives in the investment of the Common Cash or the investment of trust funds other than the pension trust funds.

Derivatives are used for a small amount of the pension trust fund portfolios. However, derivatives are not used for speculation and they are not used to leverage the investment portfolios. Less than 6% of the total pension trust fund's portfolio has been invested from time to time in futures contracts, collateralized mortgages and swap agreements. Swap agreements represent the largest category of derivatives used and represent approximately 5.4% of the total portfolio at market values.

To further diversity the pension fund's portfolio into international equities, the State Treasurer has entered into swap agreements with AAA rated counterparties which are tied to stock market indices in seventeen foreign countries. The notional amounts of the swap agreements at September 30, 1997, and 1996, were \$1,340.6 million and \$957.6 million, respectively. One half of the notional amount is hedged against foreign currency fluctuations. The swap agreements provide the retirement systems will pay quarterly, over the term of the swap agreements, interest indexed to the three month London Inter Bank Offer Rate (LIBOR), adjusted for an interest rate spread, on the notional amount stated in the agreements. At the maturity of the swap agreements the pension fund will either receive the increase in the value of the international equity indices from the level of the indices at the inception of the agreements, or pay the decrease in the value of the indices. Swap agreement maturities range from January 1998 to December 2000.

U. S. domestic LIBOR based floating rate notes were purchased in the open market to correspond approximately with the notional amount of the swap agreements. The State Treasurer maintains custody and control of these notes. The value of these synthetic equity structures is a combination of the value of the swap agreements and the value of the notes. The current value represents the current value of the notes and the change in value of the underlying indices from the inception of the swap agreements. The current value is used as a representation of the fair value based upon the intention to hold all swap agreements until maturity.

The respective September 30, 1997 and 1996 values are as follows:

	Notional Amount	<b>Book Value</b>	<b>Current Value</b>
9/30/97 (dollars in millions)	\$1,340.6	\$1,327.6	\$1,612.5
9/30/96 (dollars in millions)	957.6	954.8	1,070.5

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# **Notes to General Purpose Financial Statements**

# Investments Exceeding 5% of Plan Net Assets

MPSERS did not hold an individual investment (other than U.S. Government securities) that exceeded 5% of net assets available for benefits at September 30, 1997 or 1996.

# Securities Lending

In May 1995, GASB issued Statement No. 28, Accounting and Financial Reporting for Securities Lending Transactions. The statement established accounting and financial reporting standards for recognizing assets and liabilities arising from collateralized securities' lending transactions in which governmental entities (lenders) transfer their securities to broker-dealers and other entities (borrowers). MPSERS adopted the provisions of this standard for the year ended September 30, 1997. Comparative amounts for fiscal year 1996 have been restated to reflect this change. The effect of this change has increased the total assets and total liabilities of the system as of September 30, 1997 and 1996 by \$1,112,477,273 and \$602,432,922 respectively.

State statues allow the retirement system to participate in securities lending transactions, and the retirement system has, via a Securities Lending Authorization Agreement, authorized its agent bank, State Street Bank & Trust Company (State Street), to lend its securities to broker-dealers and banks pursuant to a form of loan agreement.

During the fiscal year, the agent lent, at the direction of the retirement system, the retirement system's securities and received cash (United States and foreign currency), securities issued or guaranteed by the United States government, sovereign debt rated A or better, convertible bonds, and irrevocable bank letters of credit issued by a person other than the borrower or an affiliate of the borrower as collateral. The agent bank did not have the ability to pledge or sell collateral securities delivered absent a borrower default. Borrowers were required to deliver collateral for each loan equal to: (i) in the case of loaned securities denominated in United States dollars or whose primary trading market was located in the United States or sovereign debt issued by foreign governments, 102% of the market value of the loaned securities; and (ii) in the case of loaned securities not denominated in United States dollars or whose primary trading market was not located in the United States; 105% of the market value of the loaned securities.

The retirement system did not impose any restrictions during the fiscal year on the amount of the loans that the agent bank made on its behalf. There were no failures by any borrowers to return loaned securities or pay distributions thereon during the fiscal year. Moreover, there were no losses during the fiscal year resulting from a default of the borrowers or the agent bank. State Street is not liable for any losses unless there is negligence or willful misconduct on its part.

During the fiscal year, the retirement system and the borrowers maintained the right to terminate all securities lending transactions on demand. The cash collateral received on each loan was invested, together with the cash collateral of other qualified tax-exempt plan lenders, in a collective investment pool. As of September 30, 1997, such investment pool had an average duration of 53 days and an average weighted maturity of 55 days. Because the loans were terminable at will their duration did not generally match the duration of the investments made with cash collateral. On September 30, 1997, the retirement system had no credit risk exposure to borrowers. The collateral held and the market value of securities on loan for the retirement system as of September 30, 1997, were \$1,117,745,106 and \$1,086,413,046 respectively. The types of securities included in these amounts were as follows:

USD Market Value of	_	Cash	Securities			Letter of Credit	_	Total
Collateral Loaned Securities	\$	1,112,477,273 1,081,373,549	\$	4,968,186 4,813,334	\$	299,647 226,163	\$	1,117,745,106 1,086,413,046

Gross income from security lending for the fiscal year was \$40,667,645. Expenses associated with this income amounted to \$38,657,217 for the borrower's rebate and \$664,577 for fees paid to the agent.

# **Notes to General Purpose Financial Statements**

# Categories of Investment Risk

Investments made by the fund, including repurchase agreements and information concerning reverse repurchase agreements, are summarized below. The investments that are represented by specific identifiable investment securities are classified as to credit risk in three categories.

Category 1 includes investments insured, registered, or held by MPSERS' or its agent in MPSERS' name. Category 2 includes uninsured and unregistered investments held by the counterparty's trust department or agent in MPSERS' name. Category 3 includes uninsured and unregistered investments held by the counterparty, its trust department, or agent, but not in MPSERS' name.

At September 30, 1997, all investments of the pension trust fund were classified as Category 1, except for certain investments not categorized.

The following table summarizes the investments at market value:

Category 1	
Prime Commercial Paper	\$ 1,954,462,296
Short Term Note	527,366,155
Government Securities	3,823,912,591
Corporate Bonds & Notes	2,917,257,555
Convertible Bonds	14,544,496
Preferred Stock	419,711
Equities	13,730,558,820
Real Estate	208,291,676
Alternative Investments	96,277,818
Derivatives (International)	 1,612,531,491
<b>Total Category 1</b>	\$ 24,885,622,609
Non-Categorized	
Private Placements	\$ 126,539,374
Mortgages	178,817,127
Real Estate	1,694,783,306
Alternative Investments	1,878,386,096
Cash Collateral	1,112,477,273
Securities on Loan:	
Government Securities	576,966,259
Corporate Bonds & Notes	3,970,924
Equities	 500,436,366
<b>Total Non-Categorized</b>	\$ 6,072,376,725
Grand Total	\$ 30,957,999,334

As of September 30, 1996, the market value of the Category 1 and Non-categorized investments was \$19,748,906,728 and \$5,105,511,985 respectively.

# **Notes to General Purpose Financial Statements**

# NOTE 5 — COMMITMENTS AND CONTINGENCIES

Under the Administrative Procedures Act, members may appeal a decision made by the Board. Once the administrative procedure has been exhausted, the decision may be appealed in Michigan's court system.

The majority of the administrative cases pending at September 30, 1997, or filed subsequent to fiscal year end, seek reversal of a denial of duty or non-duty disability. Various cases that have exhausted the administrative procedures have been appealed in the court system. These cases are in the normal course of business and the retirement system does not anticipate any material loss as a result of the contingent liabilities.

# NOTE 6 — SUBSEQUENT EVENTS

Public Act 143 of 1997 was effective November 19, 1997. Under this act, the actuarial value of assets was set at market at September 30, 1997, with the 5 year smoothing of investment gains or losses to be applied prospectively. Also, the inflation component of the salary scale was reduced from 5% to 4%. A stablization subaccount was established to which any overfunding is to be credited.

In May 1996, the Internal Revenue Service issued a private letter ruling allowing MPSERS members to purchase service credit and repay refunds using tax-deferred (pre-tax) dollars. The program is scheduled for implementation in school year 98-99.

# **Required Supplementary Information**

# **Schedule of Funding Progress**

Expressing the net assets available for benefits as a percentage of the actuarial accrued liability provides one indication of MPSERS funding status. Analysis of this percentage over time indicates whether the system is becoming financially stronger or weaker. Generally, the greater this percentage, the stronger the system. Trends in unfunded actuarial accrued liability and annual covered payroll are both affected by inflation. Expressing the unfunded actuarial accrued liability as a percentage of annual covered payroll approximately adjusts for the effects of inflation and aids analysis of MPSERS progress made in accumulating sufficient assets to pay benefits when due. Generally, the smaller this percentage, the stronger the system.

# **Retirement Benefits (\$ in Millions)**

Valuation Date Sept 30	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) Entry Age (b)	Unfunded (Overfunded) Accrued Liability (UAAL) (b-a)	Funded Ratio AAL (a/b)	Covered Payroll (c)	UAAL as a % of Covered Payroll ((b-a)/c)
1988	\$ 11,823	\$ 14,029	\$ 2,206	84.3 %	\$ 5,248	42.0 %
1989*	12,971	14,382	1,411	90.2	5,403	26.1
1990	13,746	15,766	2,020	87.2	5,818	34.7
1991	14,653	18,032	3,379	81.3	6,248	54.1
1992	15,333	19,563	4,230	78.4	6,592	64.2
1993#	16,999	21,699	4,700	78.3	7,070	66.5
1994	18,503	23,500	4,997	78.7	7,344	68.0
1994 <sup>@</sup>	18,503	25,014	6,511	74.0	7,344	88.7
1995	20,455	27,402	6,947	74.6	7,565	91.8
1996	22,529	28,571	6,042	78.9	7,807	77.4
1997	25,485	30,179	4,694	84.4	8,027	58.5
1997**	30,051	29,792	(259)	100.9	8,027	(3.2)

<sup>\*</sup> Benefits changes and revised actuarial assumptions.

<sup>\*</sup> Revised asset valuation method

<sup>®</sup> Revised actuarial assumptions

<sup>\*\*</sup> Revised actuarial assumptions and revised asset valuation method

# **Required Supplementary Information**

# **Schedule of Employer Contributions**

Fiscal Year Ending Sept. 30	Actuarial Required Contribution (ARC)	Percentage Contributed
1988	\$ 396,246,650	115.18 %
1989	432,812,340	98.11
1990	448,009,100	105.38
1991	503,604,920	99.82
1992	572,914,320	93.04
1993	635,531,820	96.33
1994	630,940,900	128.34
1995	810,994,850	95.01
1996	866,813,250	95.71
1997	880,561,900	102.66

# **Notes to Required Supplemental Infomation**

# **NOTE A - DESCRIPTION**

Ten year historical trend information designed to provide information about MPSERS progress made in accumulating sufficient assets to pay benefits when due is presented in the preceding schedules. Other ten year historical trend information related to the pension plan is presented in the statistical and actuarial sections of the report. This information is presented to enable the reader to assess the progress made by MPSERS in accumulating sufficient assets to pay pension benefits as they become due.

The comparability of trend information is affected by changes in actuarial assumptions, benefit provisions, actuarial funding methods, accounting policies, and other changes. Those changes usually affect trends in contribution requirements and in ratios that use the pension benefit obligation as a factor.

The Schedule of Funding Progress and Schedule of Employer Contributions are reported as historical trend information. The Schedule of Funding Progress is presented to measure the progress being made to accumulate sufficient assets to pay benefits when due. The Schedule of Employer Contributions is presented to show the responsibility of the Employer in meeting the actuarial requirements to maintain the retirement system on a sound financial basis.

# NOTE B - SUMMARY OF ACTUARIAL ASSUMPTIONS

The information presented in the required supplementary schedules was determined as part of the actuarial valuations at the dates indicated. Additional information as of the latest actuarial valuation follows.

Valuation Date 09/30/97
Actuarial Cost Method Entry Age Normal
Amortization Method Level Percent of Payroll, Closed
Remaining Amortization Period 39 years
Asset Valuation Method 5-Year Smoothed Market, but reset to
Market Value as of September 30, 1997

Actuarial Assumptions:

Inflation Rate

Investment Rate of Return

Projected Salary Increases

Cost-of-Living Adjustments

4%

8%

4-16%

3% annual non-compounded for MIP members

# **Supporting Schedules**

# **Comparative Summary Schedule of** Pension Plan Administrative Expenses Year Ended September 30, 1997 and 1996

	<u>1997</u>	1996
Personnel Service:		
Staff salaries	\$ 3,335,232	\$ 3,070,618
Retirement and social security	801,833	723,512
Other fringe benefits	517,703	485,176
Total	4,654,768	4,279,306
Professional Services:		
Actuarial	114,743	130,109
Accounting, records management and mail	1,008,881	. 582,734
Data processing	1,672,588	2,289,013
Attorney general	110,957	116,733
Audit	36,638	60,421
Medical	74,571	44,924
Medical insurance research	434,067	482,178
Total	3,452,445	3,706,112
Building and Equipment:		
Building rentals	287,423	184,878
Equipment purchase, maintenance and rentals	313,244	109,630
Depreciation	1,818	1,818
Total	602,485	296,326
Miscellaneous:		
Customer Information Center	88,230	0
Office administrative support	250,442	148,508
Department administrative support	861,848	457,788
Travel and board meetings	60,640	52,172
Postage, telephone and other	2,131,237	1,441,589
Total	3,392,397	2,100,057
<b>Total Administrative Expenses</b>	\$ 12,102,095	\$ 10,381,801

# **Supporting Schedules (Continued)**

# **Schedule of Investment Expenses**

	1997	1996
Real Estate	\$ 1,045,076	\$ 5,660,600
Securities Lending Expense Other Investment Expenses	39,321,794 6,921,177	27,711,210 5,110,423
<b>Total Investment Expenses</b>	\$ 47,288,047	\$ 38,482,233

# Payments to Consultants

	<u> 1997</u>	<u>1996</u>
Independent Auditors	\$ 36,887	\$ 60,421
Medical Advisor	37,175	44,924
Actuary	107,203	130,109
<b>Total Payments</b>	\$ 181,265	\$ 235,454

# Supporting Schedules (continued)

Detail of Changes in Plan Net Assets (Pension and Postemployment Healthcare Benefits)

			For Year Ending	For Year Ending September 30, 1997	266		
	Employee Contributions	Member Investment Plan	Employer Contributions	Retired Benefit Pavments	Undistributed Investment Income	Health	Total
Additions:							
Other Military	\$ 38,824,188 2,104,592	\$212,429,510				\$25,219,853	\$276,473,551 2,104,592
Employer contributions: Undistributed receipts and other Colleges, universities and federal School districts and other			\$138,475 68,807,930 835,218,857		\$652,251	23,409,765 294,046,018	790,726 92,217,695 1,129,264,875
Investment income Investment income Securities lending income					5,753,912,076 40,667,645		5,753,912,076 40,667,645
Less investment expenses.  Real estate operating expenses Securities lending expenses Other investment expenses Miscellaneous income					(1,045,076) (39,321,794) (6,921,177)		(1,045,076) (39,321,794) (6,921,177)
Total additions	40,928,780	212,429,510	904,165,262		5,747,944,817	342,675,636	7,248,144,005
Deductions:  Benefits and refunds paid to plan members and beneficiaries Retirement benefits Health benefits Dental/vision benefits Refund of member contributions Transfers to other systems	2,518,641	9,016,685	6,296,281	\$1,317,828,100		271.980.970 36,048.746 45,539	1,317,828,100 271,980,970 36,048,746 17,881,050
Administrative expenses  Total deductions	2,542,193	9,016,685	6,296,281	1,317,832,004	12,102,095	30,584,381	42,686,476
Net Increase	38,386,587	203,412,825	897,868,981	(1,317,832,004)	5,735,842,722	4,016,000	5,561,695,111
Other Changes in Net Assets: Interest allocation Transfers upon retirement	150,820,491 (83,251,016)	33,390,460 (104,363,237)	135,224,424	958,194,685	(1,286,464,304)	8,834,244	
Total other changes in net assets  Not Increase (Doctors)	67,569,475	(70,972,777)	(1,093,424,474)	2,374,457,836	(1,286,464,304)	8,834,244	
After Other Changes Net Assets Held in Trust for Pension	105,956,062 on	132,440,048	(195,555,493)	1,056,625,832	4,449,378,418	12,850,244	5,561,695,111
Beginning of Year Equity transfers to other funds	800,863,385	1,849,876,361	3,063,303,396	13,289,512,661	5,449,458,129	116,440,233	24,569,454,165
End of Year	\$ 906,819,447	\$1,982,316,409	\$2,867,747,903	\$14,346,138,493	\$ 9,898,836,547	\$129,290,477	\$30,131,149,276

Supporting Schedules (continued)

Detail of Changes in Plan Net Assets (Pension and Postemployment Healthcare Benefits)

			For Year Ending	For Year Ending September 30, 1996	9		
	Employee Contributions	Member Investment Plan	Employer Contributions	Retired Benefit Payments	Undistributed Investment Income	Health Benefits	Total
Additions Members contributions: Other Military	\$37,763,694 1,980,616	\$215,341,638				\$23,966,625	\$277,071,957 1,980,616
Employer contributions: Undistributed receipts and other Colleges, universities and federal School districts and other			\$64,441,033 765,159,368		\$1,294	21,865,416 259,340,981	1,294 86,306,449 1,024,500,349
Investment income: Investment income Securities lending income					3,297,172,158 28,675,936		3,297,172,158 28,675,936
Less investment expenses: Real estate operating expenses Securities lending expenses Other investment expenses					(5,660,600) (27,711,210) (5,110,423)		(5,660,600) (27,711,210) (5,110,423)
Miscellaneous income  Total additions	39,744,310	215,341,638	829,600,401	e e e dador.	3,287,367,155	305,173,022	4,677,226,526
Deductions:  Benefits and refunds paid to plan members and beneficiaries Retirement benefits Health benefits Dearth circus benefits				\$1,268,260,318		236,151,335	1,268,260,318 236,151,335 29,247,750
Refund of member contributions Transfers to other systems	2,251,963 9,514	5,985,364 9,695	3,382,173		10 381 801	59,336	11,678,836 19,209 41 833 668
Administrative expenses  Total deductions	2,261,477	5,995,059	3,382,173	1,268,260,318	10,381,801	296,910,288	1,587,191,116
Net Increase (Decrease)	37,482,833	209,346,579	826,218,228	(1,268,260,318)	3,276,985,354	8,262,734	3,090,035,410
Other Changes in Net Assets: Interest allocation Transfers upon retirement	36,993,043 (96,960,356)	98,576,972 (81,762,112)	151,759,498	882,099,360 178,722,468	(1,186,600,870)	17,171,997	
Transfers of employer shares Total other changes in net assets	(59,967,313)	. 16,814,860	(1,235,334,735)	1,387,094,233	(1,186,600,870)	17,171,997	
Net Increase (Decrease) After Other Changes Net Assets Held in Trust for Pension	(22,484,480)	226,161,439	(409,116,507)	1,179,655,743	2,090,384,484	25,434,731	3,090,035,410
and Healthcare Benefits:  Beginning of Year  Equity transfers to other funds		1,623,714,922	3,472,419,903	12,109,856,918	3,359,073,645	265,505,502 (174,500,000)	21,653,918,755 (174,500,000)
End of Year	\$800,863,385	\$1,849,876,361	\$3,063,303,396	\$13,289,512,661	\$5,449,458,129	\$116,440,233	\$24,569,454,165

## INVESTMENT SECTION

Michigan Public School Employees' Retirement System

Comprehensive Annual Financial Report for the Fiscal Year Ended September 30, 1997

# INVESTMENT SECTION



**MPSERS** 

#### **Report on Investment Activity**

#### INVESTMENT POLICY GOAL

The function of the MPSERS is to provide retirement, survivor and disability benefits to its members. The State Treasurer is the sole investment fiduciary and custodian of the investments pursuant to State law. The primary investment objective is to maximize the rate of return on the total investment portfolio, consistent with a high degree of prudence and sufficient diversity to eliminate inordinate risks and to meet the actuarial assumption for the investment rate of return, at a reasonable cost achieved by cultivating a motivated team of dedicated professionals.

#### STATE LAW

Pursuant to State Law (Section 91 of Act No. 380 of the Public Acts of 1965, as amended), the State Treasurer, State of Michigan, is the investment fiduciary for the following four State sponsored retirement systems: Michigan Public School Employees' Retirement System; Michigan State Employees' Retirement System; Michigan State Police Retirement System; and Judges' Retirement System.

The aforementioned State Law created an Investment Advisory Committee comprised of the Director of the Department of Consumer & Industry Services, the Director of the Department of Management & Budget, or their duly authorized representatives, and three public members appointed by the Governor with the advice and consent of the Senate. The committee meets quarterly and reviews investments, goals, and objectives, and may submit recommendations to the State Treasurer. The Investment Advisory Committee may also, by a majority vote, direct the State Treasurer to dispose of any holdings which, in the committee's judgement, are not suitable for the funds involved, and may, by unanimous vote, direct the State Treasurer to make specific investments.

Act No. 314 of the Public Act of 1965, as amended, authorizes the investment of assets of public employee retirement systems or plans created and established by the state or any political subdivision.

#### PROXY VOTING POLICY

The MPSERS Proxy Voting Policy sets forth directives on the following issues: Board of Directors, Corporate Governance, and Social Issues, corporate restructurings and defenses. All proxies are reviewed and voted in accordance with the above mentioned items.

#### **INVESTMENT RESULTS**

#### Total Portfolio Result

For the fiscal year ended September 30, 1997, the total portfolio returned 23.6%, compared to the median of 22.7% of state plans including MPSERS compiled by SEI Funds Evaluations. For the three year period the fund returned 18.5% and for the five year period the fund returned 13.8%. This compares with the median fund return of 17.2% for the three year period and 13.2% for the five year period.

During the fiscal year ending September 30, 1997, the nation's economy was characterized by full employment, low inflation, stable interest rates and moderate economic growth. The equity market again experienced excellent returns as the S&P 500 returned 40.5% with the Dow Jones Industrial Average returning 37.7%. With a relatively stable interest rate environment, the Lehman Bros Government/Corporate bond index experienced a return of 9.6% and the Salomon Brothers Broad Grade Index experienced a return of 9.7%.

The returns were calculated using a time-weighted rate of return in accordance with standards of the Association for Investment Management and Research (AIMR) unless a modification is described in the discussion of the return.

#### Domestic Stocks

Domestic stock returns rose in fiscal year 1997 due to continued improvement in inflation coupled with rising corporate profitability. During this period, the domestic portfolio returned 39.7% compared with a return of 40.5% for the S&P 500 and a

## INVESTMENT SECTION

#### **Report on Investment Activity**

37.7% return for the Dow Jones Industrial Average. For the most recent one year period, the market was paced by a 61.6% return on technology stocks followed by a 57.4% return on the financials and a 46.7% return on the energy sector.

Domestic equities currently represent 47.5% of the total portfolio with 37% of the total portfolio managed actively and 10.5% indexed. This compares with domestic equity exposure of 42.5% in 1995 and 35.7% in 1993.

#### International Equities

Passive exposure to international equity returns is achieved by investing in a combination of fixed income notes and equity swap agreements on foreign stock indices in developed markets. Interest on the dedicated notes is exchanged for international stock index returns, and the notional amount of the equity swap agreements is held in the approximate proportions of the Salomon Brothers Broad Market Index (BMI) Europe and Pacific Composite (EPAC) country weightings for the larger component countries. The passive investment program using swap agreements was established in 1993. During 1997, \$110 million was invested in the combination structure, bringing international equity investments to 5.4% of the total portfolio.

The benchmark used to evaluate international equity returns is a custom version of the Salomon Brothers BMI-EPAC adjusted for net dividends. Fifty percent of the benchmark return is hedged to the U.S. dollar and the other 50% is impacted by local currency exchange rate changes. The composite international equity return of 18.1% in 1997, compared favorably with the Salomon BMI-EPAC return of 16.7%. The composite international equity return of 13.3% for 3 years, compared well with the Salomon BMI-EPAC return of 11.3% over the same period.

#### Fixed Income (excluding mortgages)

For the fiscal year ending September 30, 1997, 24.8% of the portfolio was invested in fixed income compared to 26.5% and 30.4% for fiscal year 1995 and 1993 respectively. The asset allocation objective is to invest 30% of the total portolio in fixed income. Two factors hampered the effort to achieve the 30% guideline.

With the decline in interest rates during the year, there was a substantial increase in the number of issues called. In addition, the continued dramatic growth in equity prices facilitated a further increase in the portfolio market value. While fixed income holdings grew by almost \$690.8 million in real terms during fiscal 1997, the relative proportion of the total portfolio remained constant due to the significant number of issues called and the overall increase in the fund's market value.

As the year progressed, rates declined and quality and maturity spreads narrowed. The fixed income focus was, therefore, on higher grade, shorter maturity issues. Even with the more defensive posture, the fixed income segment for bonds achieved a 10.3% return compared with a 9.7% return for the Salomon Brothers Broad Grade Index. This return ranked in the 27th percentile of the broad SEI universe. The three year annualized rate was 10.5% compared to 9.5% for the index and a 15th percentile ranking. For five years the rates were 7.7% and 7.0% for a 23rd percentile ranking.

#### Real Estate Equity

As of the year ending September 30, 1997, 6.4% of the total net assets were invested in equity real estate. This compares to 6.5% and 5.8% for the fiscal years ending September 30, 1995 and 1993, respectively. The asset allocation objective is to invest 7.5% of the total net assets in equity real estate. Due to the growth of the total pension fund size during the year, certain opportunistic timing of property sales and the receipt of funds from financed properties, the percentage of total equity real estate did not materially change from the 1995 levels.

The one-year, three-year and five-year total equity real estate net returns for the fiscal year ending September 30, 1997, were 14.9%, 11.1% and 5.9%, respectively. This compares to the National Council of Real Estate Investment Fiduciaries (NCREIF) roperty Index returns of 10.9%, 9.3% and 6.1% relating to the same time periods.

The real estate investments are broadly diversified geographically, across the country, and by type of property to reduce risk. The properties are regularly valued by independent appraisers to establish market values. The market values established by

#### **Report on Investment Activity**

the appraisers are utilized in computing the real estate portfolio appreciation return. The appreciation return coupled with the income return produced from the real estate holdings are utilized to derive the equity real estate portfolio total return.

#### Real Estate Debt (Mortages)

As of the year ending September 30, 1997, 0.6% of the total net assets were invested in mortgages. This compares to 3.0% and 3.9% for the fiscal years ending September 30, 1995 and 1993, respectively. The asset allocation objective is to reduce its mortgage holdings to 0% over time.

The one-year, three-year and five-year total returns for the mortgage portfolio, for the fiscal year ending September 30, 1997, were 7.8%, 8.8% and 7.7%, respectively. This compares to Salomon Brothers Broad Grade Index returns of 9.7%, 9.5% and 7.0% relating to the same time periods. Since the majority of the mortgage portfolio is federally insured mortgages, the returns generated by the mortgage portfolio are normally expected to be less than the index.

During the year, the majority of the mortgage portfolio was sold to take advantage of the favorable low interest rate environment the economy enjoyed and the resulting premium prices for the mortgages. The sale of the mortgages resulted in realized gains to the portfolio. Current mortgage holdings are mostly comprised of federally insured multifamily mortgages and a few multi-tenant commercial office buildings. The mortgage portfolio is geographically dispersed across the country and by property type to reduce risk. Mortgages are valued monthly based upon quotes obtained from Wall Street brokerage houses that buy and sell mortgages.

#### Alternative Investments Division

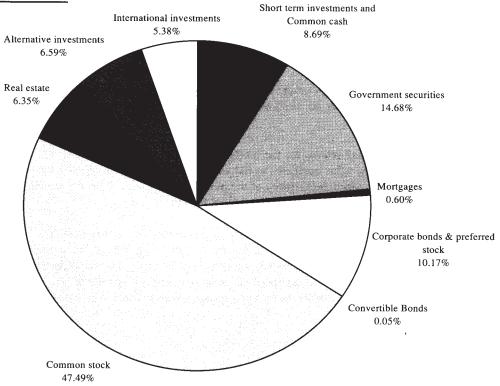
Alternative investments are investments in private equities. Through September 30, 1997, approximately 90% of those investments were made through limited partnerships. Of the investments in limited partnerships, approximately 7% were in partnerships investing internationally. The remaining 10% were direct private equity investments and public stock distributions received from the limited partnerships. The percentage of assets in alternative investments has consistently increased since 1993. As of September 30, 1997, 1995, and 1993, 6.6%, 5.9% and 4.8%, respectively, of total net assets were invested in alternative investments. The desired asset allocation for alternative investments for fiscal year 1997 was 7.5%. Due to the growth of the total pension fund's size during the year and the return of capital gains by the limited partnerships, the Alternative Investments Division was not able to meet this allocation target.

The one-year, three-year and five-year total alternative investments returns for the fiscal year ending September 30, 1997, were 16.5%, 21.9%, and 18.9%, respectively.

## INVESTMENT SECTION

### Report on Investment Activity

## **Asset Allocation**



## **Investment Results Periods Ending September 30, 1997**

	Current	Annualized Rate of Return		
Investment Category	Year	3 Years	5 Years	
Total Portfolio	23.6 %	18.5 %	13.8 %	
Median	22.7	17.2	13.2	
Domestic Equities Stock - Active/Convertible	39.7	28.6	21.9	
Domestic Equities Stock - Passive	40.0	29.9	21.3	
Standard & Poor's (S&P 500)	40.5	29.9	20.8	
International Equities	18.1	13.3	N/A	
Net Salomon BMI - EPAC 50/50	16.7	11.3	N/A	
Fixed Income Bonds (U.S. Corp and Govt)	10.3	10.5	7.7	
Salomon Brothers Broad Grade Index	9.7	9.5	7.0	
Real Estate - Debt	7.8	8.8	7.7	
Salomon Brothers Broad Grade Index	9.7	9.5	7.0	
Real Estate - Equity	14.9	11.1	5.9	
NCREIF	10.9	9.3	6.1	
Alternative Investments	16.5	21.9	18.9	

## **Report on Investment Activity**

## Largest Assets Held

### Largest Stock Holdings September 30, 1997

Rank Shares		Stocks	Market Value		
1	6,576,937	General Electric Corporation	\$ 447,646,063		
2	2,577,640	Citicorp	345,243,946		
3	2,512,908	Microsoft Corporation	332,490,396		
4	4,314,766	Compaq Computer Corporation	322,528,759		
5	3,288,732	Schlumberger Limited	276,871,770		
6	2,851,723	Amco Corporation	274,834,804		
7	5,736,811	McDonald's Corporation	273,215,624		
8	7,391,724	Chrysler Corporation	272,111,536		
9	6,536,254	Phillip Morris Companies Inc	271,666,325		
10	2,224,809	Chase Manhattan Corporation	262,527,462		

### Largest Bond Holdings September 30, 1997

Rank Par Amount		Bonds & Notes		Market Value	
1	\$ 256,047,000	U.S. Treasury Bonds at 9.125% Due 5-15-2009	\$	295,572,975	
2	320,719,700	U.S. Treasury 0% Callable Principle Due 11-15-2011		182,534,410	
3	150,220,000	Morgan, J.P. FRN Due 3-13-2000		146,276,725	
4	240,428,110	U.S. Treasury 0% Callable Principle Due 5-15-2011		141,306,813	
5	82,621,000	U.S. Treasury 7.25% Due 5-15-2016		89,733,842	
6	119,821,000	U.S. Treasury Tiger 14 0% Due 8-15-2004		78,575,017	
7	75,110,000	FHLMC - Global 6.55% Due 11-13-2001		74,945,509	
8	75,110,000	GMAC FRN Due 2-15-2000		74,888,426	
9	75,110,000	First Union Corporation FRN Due 7-22-2003		74,750,223	
10	75,110,000	FHLMC Debenture 6.51% Due 12-10-2001		74,734,450	

A complete list of stock and bond holdings is available from the Michigan Department of Treasury.

## INVESTMENT SECTION

#### **Report on Investment Activity**

## **Schedule of Investment Advisors & Commissions**

The State Treasurer is the investment fiduciary and custodian of the retirement system's funds pursuant to state law. Outside advisors are utilized to augment the State Treasurer's internal staff in the real estate and alternative investment markets. Only 6.7% of the total investment portfolio is managed by fully discretionary outside advisors. Outside advisor's fees are netted against the partnership or trust fund income. The Michigan Department of Treasury's cost of operations applicable to the retirement system for the fiscal year amounted to \$4.9 million or less than three basis points (.03%) of the average market value of the portfolio.

State law created an Investment Advisory Committee comprised of the directors of the Departments of Consumer and Industry Services and Management and Budget, or their duly authorized representatives, and three public members appointed by the Governor with the advice and consent of the Senate. The public members serve without pay, but are paid actual and necessary travel and other expenses. The committee meets quarterly to review investments, goals and objectives and may submit recommendations to the State Treasurer. The committee may also, by a majority vote, direct the State Treasurer to dispose of any holding which in the committee's judgment is not suitable for the fund involved, and may by unanimous vote direct the State Treasurer to make specific investments.

		Assets Under Management at 9-30-97 (At Market)		
Alternative Investments				
Kohlberg, Kravis & Roberts	\$	802,565,151		
Hicks, Muse, Tate & Furst Inc.		146,606,452		
Warburg, Pincus Counselors		64,309,587		
Equity Institutional Investors, Inc.		55,462,450		
Hancock Venture Partners		42,808,595		
TPG Partners, L.P.		42,241,339		
The Carlyle Group		30,884,760		
Leonard Green & Partners, L.P.		28,266,142		
The Foothill Groups		27,749,704		
Kelso & Company		25,190,617		
DLJ Merchant Banking Inc.		24,877,771		
Accel Partners		24,632,688		
Cypress Merchant Banking Partners		24,102,208		
CIE Management II Limited		23,982,166		
Advent International Corporation		23,042,864		
Berkshire Parnters		22,662,447		
Healthcare Investment Corporation		21,595,467		
Menlo Ventures		18,097,329		
Alternative Investments representing less than .06% of plan net assets	_	329,361,072		
Total Alternative Investments	\$	1,778,438,809		
Real Estate				
Raymond James Realty Advisors*	\$	464,326,250		
Equitable Realty Portfolio Management*		256,225,518		
L & B Real Estate Counsel*		177,675,395		
Kensington Realty Advisors*		155,360,312		
Aldrich, Eastman & Waltch, Inc.		116,495,021		
KOLL Investment Management (dba KB Realty Advisors)*		76,135,898		
Sentinel Realty Advisors		65,260,878		
John Hancock Timber Resource Group		36,030,873		
Real Estate representing less than .12% of plan net assets		87,541,545		
Total Real Estate	\$	1,435,051,690		
GRAND TOTAL	\$	3,213,490,499		

<sup>\*</sup> Advisor does not have full discretion.

### **Report on Investment Activity**

## Schedule of Investment Advisors & Commissions (Continued)

#### **Schedule of Commissions**

	Number of Shares Traded	Commissions Paid Fiscal Year Ended 9-30-97 <sup>(1)</sup>	Average Commissions per Shares
Investment Performance Measurement Consultant: SEI Capital Resources Company			<del></del>
(Directed brokerage included below)	611,020	\$ 36,661	0.06
Investment Brokerage Firms:	•		
Paine Webber	8,807,660	\$ 503,665	0.06
Bear Stearns	8,402,647	475,835	0.06
Salomon Brothers	7,123,507	387,197	0.05
Merrill Lynch	5,483,363	323,455	0.06
Morgan Stanley	4,090,490	236,523	0.06
Capital Inst. Service	3,641,633	218,498	0.06
Shroeder-Wertheim	3,370,862	194,288	0.06
Bernstein, Sanford	3,144,121	190,112	0.06
Smith Barney	3,136,188	185,162	0.06
Cowen & Company	3,075,520	184,123	0.06
Prudential Bache	2,847,294	162,047	0.06
First Boston	2,706,424	153,976	0.06
Bridge Trading Company	2,551,036	153,062	0.06
Donaldson, Lufkin	2,646,373	146,946	0.06
Goldman Sachs	2,569,275	142,130	0.06
Lehman	2,347,281	140,586	0.06
Citation	2,294,235	137,654	0.06
S & P Securities	2,159,112	129,547	0.06
Oppenheimer & Company	1,678,483	100,709	0.06
Wilshire Associates	1,574,456	94,467	0.06
Everen Securities	1,643,257	91,427	0.06
Deutch/Morgan/Greenfell	1,401,177	77,845	0.06
Witter, Dean/Reynolds	1,284,880	73,223	0.06
Cantor Fitzgerald	1,735,170	72,705	0.04
Montgomery Securities	932,400	53,567	0.06
Subtotal (25 highest)	80,646,844	\$ 4,628,749	0.06(2)
All Other Brokerage Firms	5,925,164	351,448	0.06(3)
Total	86,572,008	\$ 4,980,197	0.06(4)

<sup>(1)</sup> These amounts are included in purchase and sale prices of investments.

<sup>&</sup>lt;sup>(2)</sup> The average commission rate per share for the top 25 brokerage firms.

The average commission rate per share for all other brokerage firms, excluding the top 25 brokerage firm.

<sup>&</sup>lt;sup>(4)</sup> The average commission rate per share for all brokerage firms.

## INVESTMENT SECTION

#### **Report on Investment Activity**

## **Investment Summary**

	19	97	1996			
	Market Value*	Percent of Total Market Value	Market Value	Percent of Total Market Value		
Fixed Income:						
Government Bonds	\$ 4,400,878,850	14.68 %	\$ 3,652,143,575	14.94 %		
Corporate Bonds &						
Preferred Stocks	3,048,187,564	10.17	3,106,033,437	12.71		
Convertible Bonds	14,544,496	0.05	13,961,211	0.06		
Mortgages	178,817,127	.60	607,689,519	2.49		
Total Fixed Income	\$ 7,642,428,037	25.50 %	\$ 7,379,827,742	30.20 %		
Common Stocks	14,230,995,186	47.49	10,884,055,319	44.54		
Real Estate	1,903,074,982	6.35	1,551,371,058	6.35		
Alternative	1,974,663,914	6.59	1,742,158,143	7.13		
International Equity	1,612,531,491	5.38	1,070,507,186	4.38		
Short-Term Investments**	2,605,358,394	8.69	1,808,854,389	7.40		
Total	\$ 29,969,052,004	100.00 %	\$ 24,436,773,837	100.00 %		

<sup>\*</sup> Amounts do not include non-cash collateral on loaned securities. Short term investments are cost, which approximates market

<sup>\*\*</sup> Includes equity in the State Treasurer's Common Cash Fund but excludes amounts payable and receivable for sales and purchases of securities with a settlement date after September 30 for each fiscal year. Amount also excludes \$1,112,477,273 and \$602,432,922 in collateral for security lending for fiscal year 1997 and 1996 respectively.

Michigan Public School Employees' Retirement System

Comprehensive Annual Financial Report for the Fiscal Year Ended September 30, 1997

## ACTUARIAL SECTION



**MPSERS** 

## Actuarial Section

## **Actuary's Certification**

#### THE SEGAL COMPANY

One Park Avenue New York, New York 10016-5895 212-251-5321 FAX: 212-251-5490

Michael J. Karlin, F.S.A., M.A.A.A Senior Vice President & Actuary

March 2, 1998

Ms. Janet E. Phipps Director Department of Management and Budget Retirement Board Michigan Public School Employees Retirement System P.O. Box 30172 Lansing, Michigan 48909

#### Ladies and Gentlemen:

The Michigan Public School Employees Retirement System (MPSERS) is funded on an actuarial reserve basis. The basic financial objective of MPSERS is to establish and receive contributions that remain approximately level as a percentage of active member payroll over a long period of years.

Actuarial valuations are prepared annually to determine MPSERS's actuarial liabilities and the employer contributions required to fund the System in accordance with the actuarial reserve funding provisions of the governing State Statute. The most recent actuarial valuation as of September 30, 1997 included a total of 417,423 members of MPSERS. The actuarial value of MPSERS's assets amounted to approximately \$30.05 billion on September 30, 1997 (note that actuarial value was reset to market value as of September 30, 1997). The actuarial assumptions used in the 1997 valuation are the same as those used in the previous annual actuarial valuation, except for a reduction from 5% to 4% in the assumed inflation component of the salary scale. These assumptions produce valuation results which we consider to be reasonably indicative of the plan's underlying cost.

Our actuarial valuation of MPSERS as of September 30, 1997 was performed by qualified actuaries in accordance with accepted actuarial procedures. In our opinion, the calculated contribution rate meets the fundamental objectives of State law. Based on the 1997 valuation results, it is also our opinion that the Michigan Public School Employees Retirement System continues in sound condition, in accordance with actuarial principles of level cost financing.

Sincerely,

Michael Karlin, F.S.A., M.A.A.A. Senior Vice President & Actuary

Michael Karlin

Atlanta Boston Chicago Cleveland Denver Edmonton Hartford Houston Los Angeles Minneapolis Mew Orleans New York Phoenix San Francisco Seattle Toronto Washington, D.C. West Palm Beach



Multinational Group of Actuaries and Consultants: Amsterdam Brussels Hamburg Lausanne London Melbourne Mexico City Oslo Paris

## **Summary of Actuarial Assumptions and Methods**

- 1. The investment return rate used in making the valuations was 8% per year, compounded annually. This rate of return is not the assumed real rate of return. The real rate of return is the rate of investment return in excess of the inflation rate. Considering other financial assumptions, the 8% long range investment return rate translates to an assumed real rate of return of 4%. Adopted 1997.
- 2. The mortality table used in evaluating allowances to be paid was the 1983 Individual Annuitants Mortality Table, set forward two years for men and one year for women. Adopted 1994.
- 3. Sample probabilities of retirement with an age and service allowance are shown in Schedule 1 on page 48. Adopted 1994.
- 4. Sample probabilities of withdrawal from service and disability, together with individual pay increase assumptions, are shown in Schedule 2 on page 48 of this report. Adopted 1994.
- 5. Total active member payroll is assumed to increase 4% per year. This represents the portion of the individual pay increase assumptions attributable to inflation. In effect, this assumes no change in the number of active members. Adopted 1997.
- 6. An individual entry age actuarial cost method of valuation was used in determining age and service allowance actuarial liabilities and normal cost. Adopted 1975. Unfunded actuarial accrued liabilities, including actuarial gains and losses, are funded over 50 years and over 40 years on a declining basis beginning October 1, 1996. Adopted 1996.
- 7. Valuation assets (cash and investment) were reset to market value as of September 30, 1997. After this date, they will again be valued using a five year smoothed market value method. The excess (shortfall) of actual investment income (including interest, dividends, realized and unrealized gains or losses) that occurs after September 30, 1997 over the imputed income at the valuation interest rate is considered the gain (loss), which is spread over five years. Adopted 1997.
- 8. The data about persons now covered and about present assets was furnished by the system's administrative staff. Although examined for general reasonableness, the data was not audited by the actuary.
- 9. The actuarial valuation computations were made by or under the supervision of a Member of the American Academy of Actuaries (MAAA). The assumptions used in the actuarial valuations were adopted by the Retirement Board and the Department of Management and Budget after consulting with the actuary.

## ACTUARIAL SECTION

## **Summary of Actuarial Assumptions and Methods** (Continued)

SCHEDULE 1

Percent of Eligible Active Members Retiring Within Next Year

Retirement Ages	Basic	MIP
50		48 %
52		28
55	28 %	17
58	20	18
61	26	24
64	35	30
67	33	25
70	54	30

SCHEDULE 2

Separation From Active Employment Before

Age & Service Retirement & Individual Pay Increase Assumptions

Sample Ages	Years Service	Percent of Active Members Withdrawing Within Next Year (Men and Women)	Percent of Active Members Becoming Disabled Within Next Year	Percent Increase In Pay During Next Year
All	0	37.00 %		
	1	19.50		
	2	11.00		
	3	8.00		
	4	6.50		
25	5 & Over	5.78	0.01 %	15.06 %
35		2.02	0.01	8.13
45		1.39	0.05	5.78
55		1.35	0.32	4.49
65		1.35	0.33	4.00

## **Actuarial Valuation Data**

## **Schedule of Active Member Valuation Data**

Valuation Date Sept. 30	Number	Reported Annual Payroll*	Average Annual Pay	% Increase	Average Age	Average Service
1988	285,992	\$ 4,989,959	\$ 17,448	(0.7) %	41.1 years	9.2 years
1989	287,750	5,284,205	18,364	5.2	41.0	9.4
1990	288,865	5,633,895	19,504	6.2	41.3	9.5
1991	293,503	6,032,513	20,553	5.4	41.5	9.6
1992	297,230	6,427,775	21,626	5.2	43.2	10.2
1993	296,585	6,897,924	23,258	7.5	42.2	9.8
1994	291,006	7,164,806	24,621	5.9	42.5	10.0
1995	294,911	7,564,876	25,651	4.2	43.4	10.1
1996	295,096	7,807,029	26,456	3.1	43.6	9.9
1997	295,691	8,027,450	27,148	2.6	43.6	10.0

<sup>\*</sup> July 1 through June 30 payrolls in thousands of dollars through 1993, October 1 through September 30 annualized payments for fiscal years beginning October 1, 1993.

Schedule of Changes in the Retirement Rolls

Year	Add	Added to Rolls		Removed from Rolls		Rolls-End of Year		Average	
Ended Sept. 30	No.	No. Allowances*		Annual Allowances*	No.	Annual Allowances*	in Annual Allowances	Annual Allowances	
1988	5,049	\$ 60,607	2,254	\$ 13,945	76,111	\$ 547,015	9.3 %	\$ 7,187	
1989	6,086	79,382	2,280	14,973	79,917	611,424	11.8	7,651	
1990	5,808	93,148	2,439	17,722	83,286	686,850	12.3	8,247	
1991	5,595	83,226	2,628	20,359	86,253	749,717	9.2	8,692	
1992	6,651	104,184	2,703	22,611	90,201	831,290	10.9	9,216	
1993	6,278	100,691	2,905	20,295	93,574	911,686	9.7	9,743	
1994	7,451	129,506	3,036	22,373	97,989	1,018,819	11.8	10,397	
1995	8,192	146,151	3,030	22,998	103,151	1,141,972	12.1	11,071	
1996	7,443	135,326	3,129	25,487	107,465	1,251,811	9.6	11,646	
1997	7,691	147,433	3,314	27,765	111,842	1,371,479	9.6	12,263	

<sup>\*</sup> In thousands of dollars

## ACTUARIAL SECTION

## **Prioritized Solvency Test**

The MPSERS funding objective is to meet long term benefit promises through contributions that remain approximately level from year to year as a percent of member payroll. If the contributions to the system are level in concept and soundly executed, the system will pay all promised benefits when due, the ultimate test of financial soundness. Testing for level contribution rates is the long term solvency test.

A prioritized solvency test is another means of checking a system's progress under its funding program. In a short condition test, the plan's present assets (cash and investments) are compared with: (1) active member contributions on deposit; (2) the liabilities for future benefits to present retired lives; and (3) the liabilities for service already rendered by active members. In a system that has been following the discipline of level percent of payroll financing, the liabilities for active member contributions on deposit (liability 1) and the liabilities for future benefits to present retired lives (liability 2) will be fully covered by present assets (except in rare circumstances). In addition, the liabilities for service already rendered by active members (liability 3) is normally partially covered by the remainder of present assets. Generally, if the system has been using level-cost financing, the funded portion of liability 3 will increase over time. Liability 3 being fully funded is not necessarily a byproduct of level percent of payroll funding methods.

The schedule below illustrates the history of the liabilities of the system and is indicative of the MPSERS policy of following the discipline of level percent of payroll financing.

Actuari	al Present	Value	of	
Accrued	Liabilities	(\$ in	Millions)	
(1)	(2)		(3)	

Valuation Date	(1) Active Member	(2) Retirants and	(3) Active Members (Employer Financed	Valuation	2	Portion of Value C by As	overed	
Sept. 30	Contributions	Beneficiaries	Portion)	Assets	(1)	(2)	(3)	(4)***
1988 1989**®	\$ 874 1,003	\$ 4,503 6,046	\$ 8,652 7,333	\$ 11,823 12,971	100 % 100	100 % 100	74.5 % 80.8	84.3 % 90.2
1990	1,192	6,611	7,963	13,746	100	100	74.6	87.2
1991	1,365	7,505	9,162	14,653	100	100	63.1	81.3
1992	1,510	8,212	9,841	15,333	100	100	57.0	78.4
1993 <sup>+</sup>	1,700	9,177	10,822	16,999	100	100	56.6	78.3
1994	1,892	10,051	11,557	18,502	100	100	56.7	78.7
1994®	1,892	10,312	12,810	18,502	100	100	49.2	73.9
1995	2,057	11,569	13,776	20,455	100	100	49.6	74.6
1996	2,261	12,590	13,720	22,529	100	100	56.0	78.9
1997	2,500	14,303	13,376	25,485	100	100	64.9	84.4
1997®+	2,500	14,303	12,989	30,051	100	100	102.0	100.9

Revised actuarial assumptions.

<sup>#</sup> Benefits amended.

<sup>\*</sup> Revised asset valuation method.

<sup>\*\*\*</sup> Percents funded on a total valuation asset and total actuarial accrued liability basis.

## **Summary Of Plan Provisions**

Our actuarial valuation of MPSERS as of September 30, 1997 is based on the present provisions of the Public School Employees' Retirement Act (Act 300 of 1980, as amended).

#### Regular Retirement (no reduction factor for age)

<u>Eligibility</u> — Age 55 with 30 years credited service; or age 60 with 10 years credited service. For Member Investment Plan (MIP) members, any age with 30 years credited service; or age 60 with 10 years credited service; or age 60 with 5 years of credited service provided member worked through 60th birthday and has credited service in each of the last 5 years.

Mandatory Retirement Age — None.

<u>Annual Amount</u> — Total credited service times 1.5% of final average compensation.

<u>Final Annual Compensation</u> — Average of highest 5 consecutive years. (3 years for MIP members).

#### Early Retirement (age reduction factor used)

<u>Eligibility</u> — Age 55 with 15 or more years credited service and earned credited service in each of the last 5 years.

<u>Annual Amount</u> — Regular retirement benefit, reduced by 1/2% for each month by which the commencement age is less than 60.

#### Deferred Retirement (vested benefit)

<u>Eligibility</u> — 10 years of credited service. Benefit commences at the time age qualification is met.

<u>Annual Amount</u> — Regular retirement benefit based on service and final average compensation at time of termination.

#### **Duty Disability Retirement**

<u>Eligibility</u> — No age or service requirement; in receipt of workers' disability compensation.

<u>Annual Amount</u> — Computed as regular retirement benefit with minimum benefit based on 10 years credited service. Additional limitation such that disability benefits plus authorized outside earnings limited to 100% of final average compensation (increased by 2% each year retired).

#### Non-Duty Disability Retirement

Eligibility — 10 years of credited service.

<u>Annual Amount</u> — Computed as regular retirement benefit based on credited service and final average compensation at time of disability. Additional limitation such that disability benefits plus authorized outside earnings limited to 100% of final average compensation (increased by 2% each year retired).

#### Duty Death Before Retirement

<u>Eligibility</u> — No age or service requirement. Beneficiary is in receipt of workers' compensation. Also applies to "duty disability" retirees during first three years of disability.

## ACTUARIAL SECTION

## **Summary Of Plan Provisions (Continued)**

<u>Annual Amount</u> — Spouse benefit computed as regular retirement benefit with minimum benefit based on ten years of credited service, reduced for 100% joint and survivor election. If no surviving spouse, children under 18 share in benefit; if no spouse or children, a disabled and dependent parent is eligible.

#### Non-Duty Death Before Retirement

<u>Eligibility</u> — 15 years of credited service, or age 60 and 10 years of credited service. 10 years of credited service, or age 60 and 5 years of credited service for MIP members.

<u>Annual Amount</u> — Computed as regular retirement benefit, reduced in accordance with a 100% joint and survivor election, with payments commencing first of month following death. For the beneficiary of a deferred member, benefit commences a time member would have attained the minimum age qualification.

#### Post-Retirement Cost-of-Living Adjustments

One-time upward adjustments have been made in 1972, 1974, 1976 and 1977 for members retired on or after July 1, 1956 and prior to July 1, 1976 who were eligible for Social Security benefits. For members who retired prior to July 1, 1956 and not eligible for Social Security benefits based upon membership service, the minimum base pension was increased in 1965, 1971, 1972, 1974 and 1981, and in 1976 and 1977 one-time upward adjustments were made.

Beginning in 1983, eligible recipients received an annual distribution of investment earnings in excess of 8% (supplemental payment). On January 1, 1986, all members who retired prior to January 1, 1986 were given a permanent 8% increase. On January 1, 1990 a one-time upward adjujstment for members who retired prior to October 1, 1981 was made.

Currently members receive annual increases based on the following schedule:

Retired before January 1, 1987	Greater of 13th check or automatic 3% increase
Retired on or after January 1, 1987 under MIP	Automatic 3% increase only
Retired on or after January 1, 1987 not under MIP	. 13th check only

#### Post-Retirement Health Benefits

Members in receipt of pension benefits are eligible for fully State-paid Master Health Care Plan coverage (90% State-paid Dental Plan, Vision Plan and Hearing Plan coverage) with the following exceptions:

- 1. Members not yet eligible for Medicare coverage pay an amount equal to the Medicare Part B preimums.
- 2. Members with less than 30 years of service, who terminate employment after October 31, 1980 with vested deferred benefits, are eligible for partially State-paid health benefit coverage (no State payment if less than 21 years service).

Dependents are eligible for 90% State-paid health benefit coverage (partial State payment for dependents of deferred vested members who had 21 or more years of service).

#### Member Contributions

MIP Participants hired before January 1, 1990 — 3.9% of pay

## ACTUARIAL SECTION

## **Summary Of Plan Provisions (Continued)**

MIP Participants hired on or after January 1, 1990 — 3.0% of first \$5,000 of pay, plus 3.6% of next \$10,000 of pay, plus 4.3% pay in excess of \$15,000.

Non-MIP Participants — None.

#### Senate Bill No. 719 (Enacted in 1997)

Under this legislation, the actuarial value of assets was reset to market value as of September 30, 1997, with the 5-year smoothing of investment gains or losses to be applied prospectively. Also, the inflation component of the salary scale was revised from 5% to 4%. Finally, a stabilization subaccount was established to which any overfunding is to be credited.

## STATISTICAL SECTION

Michigan Public School Employees' Retirement System

Comprehensive Annual Financial Report for the Fiscal Year Ended September 30, 1997

# STATISTICAL SECTION



**MPSERS** 

## Schedule of Revenues by Source

Fiscal Year			<b>Employer Contributions</b>		Net Investment		
Ended Sept. 30	Health Insurance	Member Contributions	Dollars*	% of Annual Covered Payroll	& Other Income	Total	
1988@	\$ 140,690,100	\$ 141,662,531	\$ 456,400,258	9.15%	\$ (255,000,109) \$	483,752,780	
1989	141,662,800	157,309,641	424,642,678	8.04	1,843,715,391	2,567,330,510	
1990	182,127,000	174,658,758	472,089,593	8.38	(433,399,646)	395,475,705	
1991	171,007,634*	174,835,458	502,685,310	8.33	2,241,235,939	3,089,764,341	
1992	231,559,072*	196,103,714	533,025,550	8.29	1,343,143,928	2,303,832,264	
1993	166,642,908*	223,584,885	612,220,399	8.88	1,968,375,434	2,970,823,626	
1994	88,178,299*	244,086,635	809,763,082	11.30	432,291,116	1,574,324,132	
1995	271,031,481*	248,662,424	770,541,054	10.19	3,123,477,389	4,413,712,348	
1996	305,173,023*	255,085,948	829,600,401	10.63	3,287,367,155	4,677,226,526	
1997	342,675,635*	253,358,291	904,165,262	11.25	5,747,944,817	7,248,144,005	

<sup>\*</sup> Includes employer contributions for health, dental and vision benefits funded on a pay-as-you-go basis, or as statutorily required.

## Schedule of Expenses by Type

Fiscal Year Ended Sept. 30	Benefits Payments	Refunds and Transfers	Administrative Expenses	Total	
1988*	\$ 616,882,022	\$ 1,560,025	\$ 8,184,566	\$ 626,626,613	
1989	741,995,367	1,425,086	8,251,139	751,671,592	
1990	821,705,321	2,418,521	9,162,436	833,286,278	
1991	898,321,741	4,630,054	12,095,624	915,047,419	
1992	1,010,916,803	3,453,420	13,229,581	1,027,599,804	
1993	1,115,092,306	3,940,883	13,121,256	1,132,154,445	
1994	1,234,384,948	5,457,370	15,307,293	1,255,149,611	
1995	1,391,780,504	7,926,131	15,343,147	1,415,049,782	
1996	1,565,111,270	11,698,045	10,381,801	1,587,191,116	
1997	1,656,442,198	17,904,602	12,102,095	1,686,448,895	

Unaudited.

<sup>&</sup>lt;sup>@</sup> Unaudited.

## STATISTICAL SECTION

## Schedule of Benefit Expenses by Type

Fiscal Year Ended Sept. 30	Regular Benefits*	Disability Benefits	Supplemental Check	Health Benefits	Total
1988@	\$ 513,777,552	\$ 15,457,236		\$ 87,647,234	\$ 616,882,022
1989	574,871,159	16,415,752	\$ 28,088,593	122,619,863	741,995,367
1990	645,955,531	19,981,087		155,768,703	821,705,321
1991	706,806,593	19,979,268		171,535,880	898,321,741
1992	775,316,096	21,836,151		213,764,556	1,010,916,803
1993	855,363,962	23,909,603		235,818,741	1,115,092,306
1994	952,147,141	25,839,763		256,398,044	1,234,384,948
1995	1,071,950,982	28,257,525		291,571,997	1,391,780,504
1996	1,178,250,042	31,209,798	58,800,478	296,850,952	1,565,111,270
1997	1,274,469,892	37,129,588	6,228,619	338,614,099	1,656,442,198

<sup>\*</sup> Includes prior post retirement adjustments.

## Schedule of Health Benefits For Year Ended September 30, 1997

Claims	
Health Insurance	\$ 236,330,585
Vision Insurance	4,975,924
Dental Insurance	 27,727,841
<b>Total Claims</b>	\$ 269,034,350
IBNR (Incurred but not reported claims)	
Health Insurance	\$ 35,650,385
Vision Insurance	1,243,981
Dental Insurance	 2,101,000
Total IBNR	\$ 38,995,366
Administrative Fees	
Health Insurance	\$ 27,430,350
Vision Insurance	710,767
Dental Insurance	 2,443,262
<b>Total Administrative Fees</b>	\$ 30,584,379
Subtotal	\$ 338,614,095
Refunds	45,539
Grand Total	\$ 338,659,634

<sup>&</sup>lt;sup>@</sup> Unaudited.

## Schedule of Retired Members by Type of Benefit September 30, 1997

Amount			Тур	e of Ret	irement	*		S	Selected O <sub>1</sub>	ption #	
Monthly Benefit	Number of Retirees	1	2	3	4	_5	6	Opt. 1	Opt. 2	Opt. 3	Opt.1E 2E,3E
\$ 1 - 200	14,829	12,690	1,128	100	675	1	235	9,405	2,736	1,861	827
201 - 400	18,328	15,060	1,389	88	1,277		514	11,139	3,703	2,511	975
401 - 600	13,180	10,830	946	47	832		525	7,563	2,629	1,992	996
601 - 800	10,136	8,493	640	13	565		425	5,811	1,981	1,440	904
801 - 1,000	8,219	7,046	429	21	401	1	321	4,397	1,673	1,160	989
1,001 - 1,200	7,088	6,203	328	3	295		259	3,471	1,553	1,107	957
1,201 - 1,400	6,413	5,754	241	2	216		200	2,877	1,586	1,085	865
1,401 - 1,600	6,108	5,614	195	2	130		167	2,692	1,619	1,109	688
1,601 - 1,800	5,785	5,453	148		68		116	2,477	1,522	1,142	644
1,801 - 2,000	5,657	5,429	119	1	32		76	2,336	1,345	1,132	844
Over 2,000	16,099	15,788	175		4	_1_	119	6,451	2,865	2,934	3,849
Totals	111,842	98,360	5,738	277	4,495	3	2,957	58,619	23,212	17,473	12,538

<sup>\*</sup> Type of Retirement

- 1 Normal retirement for age & service
- 2 Survivor payment normal retirement
- 3 Duty disability retirement
- 4 Non-duty disability retirement
- 5 Survivor payment duty death in service
- 6 Survivor payment non-duty death in service

#### Selected Option #

Opt. 1. - Straight life allowance

Opt. 2 - 100% survivor option

Opt. 3 - 50% survivor option

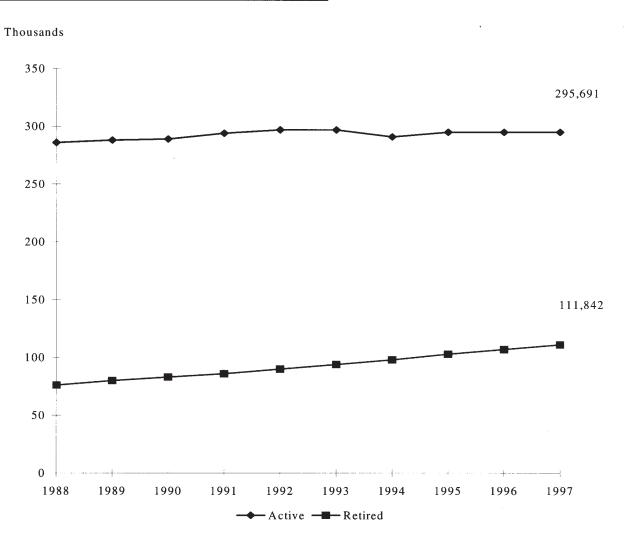
Opt. 1E, 2E, 3E - Equated retirement plans

## STATISTICAL SECTION

## Schedule of Average Benefit Payments

Retirement Effective Dates	Average Yearly Benefit	Number of Active Retirants
Period 10/01/91 to 09/30/92	\$ 9,216	90,201
Period 10/10/92 to 09/30/93	9,743	93,574
Period 10/01/93 to 09/30/94	10,397	97,989
Period 10/01/94 to 09/30/95	11,071	103,151
Period 10/01/95 to 09/30/96	11,649	107,465
Period 10/01/96 to 09/30/97	12,263	111,842

## 10 Year History of Membership Fiscal Year Ended September 30



## Schedule of Participating Employers

#### **Universities:**

Central Michigan University
Eastern Michigan University
Ferris State University
Lake Superior State University
Michigan Technological University
Northern Michigan University
Western Michigan University

#### **Community Colleges:**

Alpena Community College Bay De Noc Community College Charles S Mott Community College Delta College Glen Oaks Community College Gogebic Community College Grand Rapids Community College Henry Ford Community College Highland Park Community College Jackson County Community College Kalamazoo Valley Community College Kellogg Community College Kirtland Community College Lake Michigan College Lansing Community College Macomb Community College Mid-Michigan Community College Monroe County Community College Montcalm Community College Muskegon Community College North Central Michigan College Northwestern Michigan College Oakland Community College Schoolcraft Community College Southwestern Michigan College St. Clair County Community College Washtenaw Community College Wayne County Community College West Shore Community College

#### **Intermediate School Districts:**

Allegan County Intermediate School Distr. Alpena-Montmorency-Alcona E. S. D. Barry Intermediate School District Bay-Arenac Intermediate School District Berrien Intermediate School District Branch Intermediate School District C.O.O.R. Intermediate School District

#### **Intermediate School Districts (continued):**

Calhoun Intermediate School District Charlevoix-Emmet Intermed. School Distr. Cheboygan-Otsego-Presque Isle ISD Clare-Gladwin Intermediate School District Clinton County R. E. S. A. Copper Country Intermediate School Distr. Delta-Schoolcraft Intermed. School Distr. Dickinson-Iron Intermediate School District Eastern U P Intermediate School District Eaton Intermediate School District Genesee Intermediate School District Gogebic-Ontonagon Intermed. School Distr. Gratiot-Isabella R. E. S. D. Hillsdale Intermediate School District Huron Intermediate School District Ingham Intermediate School District Ionia Intermediate School District Iosco Intermediate School District Jackson Intermediate School District Kalamazoo Valley Intermed. School Distr. Kent Intermediate School District Lapeer Intermediate School District Lenawee Intermediate School District Lewis Cass Intermediate School District Livingston E. S. A. Macomb Intermediate School District Manistee Intermediate School District Marquette-Alger Intermediate School Distr. Mason Lake Intermediate School District Mecosta-Osceola Intermed. School Distr. Menominee Intermediate School District Midland Intermediate School District Monroe Intermediate School District Montcalm Area Intermediate School Distr. Muskegon Area Intermediate School Distr. Newaygo Intermediate School District Oakland Intermediate School District Oceana Intermediate School District Ottawa Area Intermediate School District Saginaw Intermediate School District Sanilac Intermediate School District Shiawassee R. E. S. D. St. Clair Intermediate School District St. Joseph Intermediate School District Traverse Bay Area Intermed. School Distr. Tuscola Intermediate School District Van Buren Intermediate School District Washtenaw Intermediate School District Wayne R. E. S. A.

Wexford-Missaukee Intermed. School Distr.

## STATISTICAL SECTION

## **Schedule of Participating Employers (Continued)**

#### **K - 12 School Districts:**

Adams Township School District

Adams-Sigel #3 School

Addison Community Schools

Adrian Public Schools

Airport Community Schools

Akron-Fairgrove Schools

Alba Public Schools

Albion Public Schools

Alcona Community Schools

Algonac Community Schools

Allegan Public Schools

Allen Park Public Schools

Allendale Public Schools

Alma Public Schools

**Almont Community Schools** 

Alpena Public Schools

Anchor Bay School District

Ann Arbor Public Schools

A F THE THE SCHOOLS

Arenac-Eastern High School

Armada Area Schools Arvon Township Schools

A ship Community Cabasia

Ashley Community Schools

Athens Area Schools

Atherton Community Schools

Atlanta Community Schools

Au Gres-Sims School District

Autrain-Onota Public Schools

Avondale School District

Bad Axe Public Schools

**Baldwin Community Schools** 

**Bangor Public Schools** 

Bangor Township Schools

Baraga Township Schools

Bark River - Harris Schools

Bath Community Schools

Battle Creek Public Schools

**Bay City Public Schools** 

Beal City Schools

Bear Lake School

Beaver Island Community Schools

Beaverton Rural School District

**Bedford Public Schools** 

Beecher Community School District

Belding Area Schools

Bellaire Public Schools

Bellevue Community Schools

Bendle Public Schools

Bentley Community Schools

Benton Harbor Area Schools

Benzie County Central Schools

Berkley City School District

Berrien Springs Public Schools

Bessemer Area School District

Big Bay De Noc School District

Big Burning-Colfax #1f School

Big Jackson School District

Big Rapids Public Schools

big Kapius Fublic School

Birch Run Area Schools

Birmingham City Schools

Blissfield Community School District

Bloomfield #1-Red School

Bloomfield #7 Frl-Rapson School

Bloomfield Hills School District

Bloomingdale Public Schools

Bois Blanc Township School District

Boyne City Public Schools

Boyne Falls Public Schools

Brandon School District

Brandywine Public Schools

Breckenridge Community Schools

Breitung Township Schools

Bridgeport-Spaulding Community School Dist.

Bridgman Public Schools

Brighton Area Schools

**Brimley Public Schools** 

Britton-Macon Area School

Bronson Community Schools

**Brown City Community Schools** 

Buchanan Community Schools

Buckley Community Schools

Buena Vista School District

Bullock Creek School District

Danock Creek Behoof District

Burr Oak Community Schools

Burt Township School District

Byron Area Schools

Byron Center Public Schools

Cadillac Area Public Schools

Caledonia Community Schools

Calumet Public Schools

Camden-Frontier School

Capac Community Schools

Carman-Ainsworth Community School District Carney-Nadeau Public Schools

Caro Community Schools

Carrollton School District

Carson City-Crystal Area Schools

Carsonville-Port Sanilac School

Caseville Public Schools

Cass City Public Schools

#### **K - 12 School Districts (continued):**

Cedar Springs Public Schools Center Line Public Schools

Central Lake-Antrim County Public Schools

Central Montcalm Public Schools Centreville Public Schools Charlevoix Public Schools Charlotte Public Schools Chassell Township Schools

Cheboygan Area School District Chelsea School District Chesaning-Union Schools Chippewa Hills School District Chippewa Valley Schools

Church School
Clare Public Schools
Clarenceville School District
Clarkston Community Schools
Clawson City School District
Climax-Scotts Community Schools
Clinton Community Schools
Clintondale Community Schools

Clio Area School District
Coldwater Community Schools
Coleman Community Schools
Coloma Community Schools
Colon Community School
Columbia School District
Comstock Park Public Schools
Comstock Public Schools

**Concord Community Schools** 

Constantine Public Schools

Coon-Berlin Township School District #3

Coopersville Public Schools Corunna Public Schools Covert Public Schools

Crawford-AuSable School District Crawford-Excelsior School District #1

Crestwood School District Croswell-Lexington Schools Dansville Agricultural School Davison Community Schools

Dearborn Heights School District #7

Dearborn Public Schools Decatur Public Schools

Deckerville Community School District

Deerfield Public Schools Delton-Kellogg Schools DeTour Area Schools

**Detroit Public Schools** 

Dewitt Public Schools
Dexter Community Schools
Dowagiac-Union School District
Dryden Community Schools
Dundee Community Schools
Durand Area Schools

East China Township School District

East Detroit School District
East Grand Rapids Public Schools
East Jackson Public Schools
East Jordan Public Schools
East Lansing Public Schools
Eaton Rapids Public Schools
Eau Claire Public Schools
Eccles-Sigel #4 School
Ecorse Public Schools
Edwardsburg Public Schools

Elk Rapids Schools Elkton-Pigeon-Bay Port Schools Ellsworth Community Schools Elm River Township Schools

Engadine Consolidated School District #4

Escanaba Area Public Schools
Essexville-Hampton Public Schools

**Evart Public Schools** 

Ewen-Trout Creek Consolidated School District

Fairview Area Schools
Farmington Public Schools
Farwell Area Schools
Fennville Public Schools
Fenton Area Public Schools
Ferndale City School District
Fitzgerald Public Schools
Flat Rock Community Schools
Flint City School District
Flushing Community Schools

Flushing Community School Forest Area Schools Forest Hills Public Schools Forest Park School District Fowler Public Schools

Fowlerville Community Schools Frankenmuth School District Frankfort-Elberta Area Schools

Fraser Public Schools

Free Soil Community School District #8

Freeland Community Schools Fremont Public Schools Fruitport Community Schools

Fulton Schools

Galesburg-Augusta Community School District

Galien Township School

#### **K - 12 School Districts (continued):**

Garden City Public Schools Gaylord Community Schools Genesee School District

Gerrish-Higgins School District Gibraltar School District Gladstone Area Schools Gladwin Community Schools Glen Lake Community Schools

Glenn-Ganges School District #4 Gobles Public Schools Godfrey-Lee Public Schools Godwin Heights Public Schools

Goodrich Area Schools

**Grand Blanc Community Schools** Grand Haven Public Schools **Grand Ledge Public Schools** Grand Rapids Public Schools Grandville Public Schools Grant Public Schools Grant Township School

Grass Lake Community Schools Greenville Public Schools Grosse Ile Township Schools Grosse Pointe Public Schools Gull Lake Community Schools Gwinn Area Community Schools

Hale Area Schools

**Hamilton Community Schools** Hamtramck Public Schools Hancock Public Schools

Hanover Horton School District

Harbor Beach Community School District

Harbor Springs Public Schools Harper Creek Community Schools Harper Woods Public Schools Harrison Community Schools

Hart Public Schools Hartford Public Schools Hartland Consolidated Schools

Haslett Public Schools

Hastings Area School District

Haynor- Easton Township School District #6

Hazel Park Public Schools Hemlock Public Schools Hesperia Community Schools Highland Park School District Hillman Community Schools Hillsdale Community Schools Holland Public Schools

Holly Area Schools Holt Public Schools Holton Public Schools Homer Community Schools Hopkins Public Schools

Houghton Lake Community Schools

Houghton-Portage Township School District

Howell Public Schools Hudson Area Schools **Hudsonville Public Schools** Huron School District Huron Valley School District

Ida Public Schools

Imlay City Community Schools

Inkster Public Schools Inland Lakes Schools Ionia Public Schools

Iron Mountain Public Schools

Ironwood-Gogebic City Area Schools

**Ishpeming Public Schools** Ithaca Public Schools Jackson Public Schools Jefferson Schools Jenison Public Schools

Johannesburg-Lewiston Area Schools

Jonesville Community Schools Kalamazoo Public Schools

Kaleva Norman Dickson School District

Kalkaska Public Schools Kearsley Community Schools Kelloggsville Public Schools Kenowa Hills Public Schools Kent City Community Schools Kentwood Public Schools Kingsley Area Schools Kingston Community Schools

Kipper School

L'Anse Creuse Public Schools

L'Anse Public Schools

Laingsburg Community Schools

Lake City Area Schools

Lake Fenton Community School District Lake Linden-Hubbell Public Schools Lake Orion Community School #3

Lake Shore Public Schools Lakeshore Public Schools Lakeview Community Schools Lakeview Public Schools Lakeview School District Lakeville Community Schools Lakewood School District

#### **K - 12 School Districts (continued):**

Lamphere Public Schools
Lansing Public Schools
Lapeer Public Schools
Lawrence Public Schools
Lawton Community Schools
Leland Public Schools

Les Cheneaux Community Schools

Leslie Public Schools

Lincoln Consolidated Schools
Lincoln Park Public Schools
Linden Community Schools
Litchfield Community Schools
Littlefield Public Schools
Livonia Public Schools

Loucks-Roxend Township School District #12

Loucks-Roberta Township School
Lowell Area Schools
Ludington Area Schools
Mackinac Island Public Schools
Mackinaw City Public Schools
Madison District Public Schools
Madison School District #2
Mancelona Public Schools
Manchester Community Schools
Manistee Public Schools

Manton Consolidated School District

Manistique Area Schools

Maple Valley Schools
Mar Lee School District
Marcellus Community Schools
Marenisco School District
Marion Public Schools
Marlette Community Schools
Marquette Area Public Schools
Marshall Public Schools
Martin Public Schools
Marysville Public Schools
Mason Consolidated Schools

Mason County Central School District

Mason County-Eastern-Custer #5 School District

Mason Public Schools

Mattawan Consolidated Schools Mayville Community Schools McBain Rural Agricultural School

Melvindale-Northern Allen Park School District

Memphis Community Schools Mendon Community School Menominee Area Public Schools

Meridian Public Schools Merrill Community Schools Mesick Consolidated Schools Michigan Center School District

Mid Peninsula Schools Midland City Schools Milan Area Schools

Millington Community School District

Mio-AuSable Schools

Mona Shores School District #29

Monroe Public Schools

Montabella Community Schools Montague Area Public Schools Montrose Community Schools Moran Township School District

Morenci Area Schools

Morley-Stanwood Community Schools

Morrice Area Schools

Mt Clemens Community Schools Mt Morris Consolidated Schools Mt Pleasant Public Schools Munising Public Schools Muskegon City Public Schools

Muskegon Heights City Public Schools

Napoleon Comm. School District Negaunee Public Schools New Buffalo Area Schools New Haven Community Schools New Lothrup Area Public Schools

Newaygo Public Schools Nice Community Schools Niles Public Schools

North Adams-Jerome Public Schools

North Branch Area Schools North Central Area Schools North Dickinson School North Huron Schools North Levalley School #2 North Muskegon Public Schools Northyiew Public Schools

Northview Public Schools Northville Public Schools Northwest School District Norway-Vulcan Area Schools Nottawa Community Schools Novi Community School District

Oak Park School District Oakridge Public Schools Okemos Public Schools Olivet Community Schools

Onaway Area Community Schools Onekama Consolidated Schools Onsted Community Schools

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## STATISTICAL SECTION

## **Schedule of Participating Employers (Continued)**

#### **K - 12 School Districts (continued):**

Ontonagon Area School District

Orchard View Schools
Osceola Township Schools
Oscoda Area Schools
Otsego Public Schools
Ovid-Elsie Area Schools

Owendale-Gagetown Area Schools

Owosso Public Schools

Oxford Area Community Schools

Palo Community Schools
Parchment School District
Paw Paw Public Schools
Peck Community Schools
Pellston Public Schools
Pennfield Schools
Pentwater Public Schools
Perry Public Schools
Petoskey Public Schools

Pewamo-Westphalia Community School District

Pickford Public Schools Pinckney Community Schools Pinconning Area Schools Pine River Area Schools Pittsford Area Schools Plainwell Community Schools

Plymouth-Canton Community School District

Pontiac City School District
Port Hope Community Schools
Port Huron Area Schools
Portage Public Schools
Portland Public Schools
Posen Consolidated Schools
Potterville Public Schools
Powell Township School District
Quincy Community Schools
Rapid River Public Schools
Ravenna Public Schools
Ravenna Public Schools
Reading Community Schools
Redford-Union School District #1

Reese Public Schools Reeths-Puffer Schools

Republic-Michigamme Schools Richmond Community Schools River Rouge Public Schools

Reed City Public School District

River School

River Valley School District Riverside-Hagar School District #6 Riverview Community Schools Rochester Community Schools Rockford Public Schools Rogers City Area Schools Romeo Community Schools Romulus Community Schools Roseville Community Schools Royal Oak City School District Rudyard Public Schools

Saginaw Township Community Schools

Saline Area Schools

Saginaw City Schools

Sand Creek Community Schools Sandusky Community Schools Saranac Community Schools Saugatuck Public Schools Sault Ste Marie Public Schools Schoolcraft Community Schools

Shelby Public Schools
Shepherd Public Schools
South Haven Public Schools
South Lake Public Schools
South Lyon Community Schools
South Redford School District
Southfield Public Schools

Southgate Community School District

Sparta Area Schools
Spring Lake Public Schools
Springport Public Schools
St. Charles Community Schools
St. Ignace Public Schools
St. Johns Public Schools
St. Joseph Public Schools
St. Louis Public Schools

Standish-Sterling Community School Distr.

Stanton Twnshp. Public Schools Stephenson Area Public Schools Stockbridge Community Schools Strange-Oneida School #3 Sturgis Public Schools Summerfield Schools

Superior Central School District Suttons Bay Public Schools Swan Valley School District Swartz Creek Community Schools Tahquamenon Area School District

Tawas Area Schools
Taylor Township Schools
Tecumseh Public Schools
Tekonsha Community Schools
Thornapple-Kellogg School
Three Rivers Community Schools

#### **K - 12 School Districts (continued):**

Traverse City Public Schools Trenton Public Schools Tri-County Area Schools Troy City School District **Ubly Community Schools Union City Community Schools** Unionville-Sebewaing Area Schools

Utica Community Schools Van Buren Public Schools Van Dyke Public Schools Vanderbilt Area Schools

Vandercook Lake Public Schools

Vassar Public Schools Verona Mills School

**Vestaburg Community Schools** Vicksburg Community Schools Wakefield Township Schools Waldron Area Schools

Walkerville Rural Community School Distr.

Walled Lake Consolidated Schools Warren Consolidated Schools Warren Woods Public Schools Waterford School District

Watersmeet Township School District

Watervliet Public Schools Waverly Community Schools Wayland Union Schools

Wayne-Westland Community Schools Webberville Community Schools Wells Township School #18 West Bloomfield Schools

West Branch-Rose City Area Schools West Iron County Public Schools West Ottawa Public Schools Western School District

Westwood Community Schools Westwood Heights Schools White Cloud Public Schools White Pigeon Community Schools

White Pine School District Whitefish Township School Whiteford Agricultural School Whitehall District Schools Whitmore Lake Public Schools Whittemore-Prescott Area Schools

Williamston Community Schools Willow Run Community Schools **Wolverine Community Schools** 

Wood School District #8

Woodhaven School District Wyandotte Public Schools Wyoming Public Schools Yale Public School District Ypsilanti Public Schools Zeeland Public Schools

#### **Public School Academies:**

Acad. for Plastics Mftg Technology

Academy of Detroit - East Academy of Detroit - Oak Park Academy of Detroit - Southfield Academy of Detroit - West Academy of Detroit - Westland

AGBU Alex & Marie Manoogian School Aisha Shule/WEB Dubois Prep School Averill Career Center Technical Academy Bahweting Anishnabe Public School Academy

Bay-Arenac Community High School

Benito Juarez Academy Black River Public School Central Academy

Cesar Chavez Academy Colin Powell Academy

Commonwealth Comm Development Acad.

Concord Academy

Concord Academy - Boyne

Creative Learning Acad of Science, Math & Humanities

Da Vinci Institute

Detroit School of Industrial Arts

Discovery Elementary School (Fennville Charter)

El-Hajj Malik El-Shabazz Academy

Elbert T. Clark Academy Excel Charter Academy Gaudior Academy Grattan Academy

Honey Creek Community School Horizons Community High School

Island City Academy Lake Bluff Academy Lakeshore Public Academy Learning Center Academy, The Livingston Developmental Academy Livingston Technical Academy

Macomb Academy

Martin Luther King, Jr. Public School Academy

Michigan Automotive Academy Michigan Early Elementary Center Michigan Health Academy

Mid-Michigan Public School Academy

## STATISTICAL SECTION

## **Schedule of Participating Employers (Continued)**

#### **Public School Academies (continued):**

Midland Acad. of Advanced & Creative Studies

Nah Tah Wahsh Public School Academy

Nataki Talibah School of Detroit

New Branches School

New Directions Institute

New School for Creative Learning

Northlane Math & Science Academy

Northside Preparatory School

Northwest Academy

Nsoroma Institute

Oasis Academy

**Bacon Memorial District Library** 

Pansophia Academy

Cheboygan Area Public Library

Plymouth Educational Center Charter School

Grosse Pointe Public Library

Questar Academy

Harbor Beach District Library

Renaissance Public School Academy

Kalamazoo Public Library

Saginaw County Transitional Academy

Public Libraries of Saginaw

Sankofa Shule

Willard District Library

SER Casa Academy

Sierra Leone Educational Outreach Academy

St. Clair County Learning Academy

Summit Academy

Sunrise Educational Center

Thomas-Gist Academy

Traverse Bay Community School

Tri Valley Academy

Vanderbilt Charter Academy

Vanguard Charter Academy

Vista Charter Academy

Walden Green Day School

Walter French Acad. of Business & Technology

Warwick Pointe Academy

West MI Acad. for Arts & Academics

West MI Acad. for Hospitality Sciences

West MI Academy of Environmental Science

Windover High School

Woodward Academy

#### Libraries:

Ann Arbor District Library
Bacon Memorial District Library
Cheboygan Area Public Library
Grosse Pointe Public Library
Harbor Beach District Library
Kalamazoo Public Library
Public Libraries of Saginaw
Willard District Library